

Pipe data, Dili

Input Data									Results			
NO	Pipe Name	Start Node	End Node	Demand (m ³ /s)	Type Pipe	Roughness Coeff. Coeff. A	Length(m) Coeff. B	Diameter(m) Coeff. C	Flow (m ³ /s)	Head Loss (m)	Veloc. (m/s)	Loss Coeff.
					Pump : PM							
1	P5	N6	N1	0.00000	P	120.0	166.7	0.050	0.00119	2.12	0.60	
2	P12	N14	N15		P	120.0	120.8	0.080	-0.00027	-0.01	-0.05	
3	P13	N15	N16		P	120.0	756.3	0.080	-0.00041	-0.14	-0.08	
4	P14	N16	N17		P	120.0	91.2	0.080	0.00041	0.02	0.08	
5	P15	N17	N18		P	120.0	138.5	0.080	0.00021	0.01	0.04	
6	P16	N16	N19		P	120.0	646.9	0.080	-0.00186	-1.91	-0.37	
7	P17	N19	N20		P	120.0	706.4	0.080	-0.00186	-2.09	-0.37	
8	P18	N6	N21		P	120.0	722.0	0.080	-0.00194	-2.32	-0.39	
9	P23	N21	N26		P	120.0	88.4	0.080	-0.00194	-0.28	-0.39	
10	P24	N26	N27		P	120.0	66.1	0.080	-0.00201	-0.23	-0.40	
11	P25	N28	N29		P	120.0	40.6	0.080	-0.00373	-0.44	-0.74	
12	P26	N29	N30		P	120.0	410.3	0.080	-0.00490	-7.30	-0.97	
13	P27	N30	N31		P	120.0	38.2	0.080	-0.00799	-1.68	-1.59	
14	P28	N32	N33		P	120.0	97.6	0.080	0.00166	0.24	0.33	
15	P30	N27	N36		P	120.0	374.4	0.080	-0.00208	-1.37	-0.41	
16	P31	N36	N28		P	120.0	274.7	0.080	-0.00284	-1.78	-0.56	
17	P33	N37	N38		P	120.0	69.9	0.080	0.00454	1.08	0.90	
18	P34	N38	N39		P	120.0	86.6	0.080	0.00426	1.19	0.85	
19	P35	N39	N40		P	120.0	147.0	0.080	0.00385	1.68	0.77	
20	P36	N35	N41		P	120.0	23.2	0.080	0.00048	0.01	0.10	
21	P38	N42	N34		P	120.0	52.8	0.080	-0.00210	-0.20	-0.42	
22	P39	N43	N20		P	120.0	170.9	0.080	0.00323	1.41	0.64	
23	P40	N44	N45		P	120.0	16.4	0.080	-0.00168	-0.04	-0.33	
24	P41	N45	N46		P	120.0	139.9	0.080	0.00062	0.05	0.12	
25	P42	N46	N47		P	120.0	18.8	0.080	0.00055	0.01	0.11	
26	P43	N47	N48		P	120.0	108.8	0.080	0.00034	0.01	0.07	
27	P44	N48	N49		P	120.0	201.8	0.080	0.00007	0.00	0.01	
28	P45	N50	N51		P	120.0	125.3	0.080	-0.00034	-0.02	-0.07	
29	P46	N51	N52		P	120.0	39.4	0.080	-0.00096	-0.03	-0.19	
30	P47	N52	N53		P	120.0	40.1	0.080	-0.00103	-0.04	-0.21	
31	P48	N53	N54		P	120.0	475.4	0.080	0.00736	17.94	1.46	
32	P49	N54	N55		P	120.0	117.3	0.080	0.00110	0.13	0.22	
33	P50	N54	N56		P	120.0	30.6	0.080	0.00481	0.53	0.96	
34	P51	N56	N57		P	120.0	181.7	0.080	0.00323	1.50	0.64	
35	P52	N57	N58		P	120.0	112.0	0.050	0.00254	5.84	1.30	
36	P53	N58	N59		P	120.0	15.7	0.050	0.00220	0.63	1.12	
37	P54	N59	N60		P	120.0	155.4	0.050	0.00213	5.85	1.09	
38	P55	N60	N61		P	120.0	154.1	0.050	0.00078	0.91	0.40	
39	P56	N61	N62		P	120.0	83.5	0.050	0.00044	0.17	0.22	
40	P57	N62	N63		P	120.0	154.2	0.050	-0.00004	0.00	-0.02	
41	P58	N63	N60		P	120.0	89.8	0.050	-0.00114	-1.07	-0.58	
42	P59	N56	N64		P	120.0	12.5	0.080	0.00144	0.02	0.29	
43	P60	N64	N65		P	120.0	86.6	0.080	0.00069	0.04	0.14	
44	P61	N64	N66		P	120.0	53.8	0.080	0.00076	0.03	0.15	
45	P62	N53	N67		P	120.0	15.4	0.080	0.00117	0.02	0.23	
46	P63	N67	N68	0.00000	P	120.0	104.6	0.100	0.00089	0.03	0.11	
47	P69	N74	NV7_1	0.00000	P	120.0	24.8	0.200	0.00000	0.00	0.00	
48	P75	N80	N81		P	120.0	234.5	0.300	0.03004	0.19	0.42	
49	P78	N82	N84		P	120.0	178.8	0.080	0.01058	13.22	2.10	
50	P79	N84	N85		P	120.0	220.1	0.080	0.00110	0.25	0.22	
51	P80	N84	N86		P	120.0	440.7	0.080	0.00096	0.39	0.19	
52	P85	N41	N89		P	120.0	41.9	0.080	0.00048	0.01	0.10	
53	P87	N90	N91		P	120.0	55.7	0.080	-0.00127	-0.08	-0.25	
54	P88	N90	N42		P	120.0	41.5	0.080	-0.00210	-0.15	-0.42	
55	P92	N34	N93		P	120.0	262.6	0.080	-0.00251	-1.36	-0.50	
56	P93	N93	N33		P	120.0	56.2	0.080	-0.00286	-0.37	-0.57	
57	P94	N35	N94		P	120.0	326.5	0.080	-0.00695	-11.08	-1.38	
58	P95	N94	N95		P	120.0	15.9	0.080	-0.00743	-0.61	-1.48	
59	P96	N95	N1004		P	120.0	148.1	0.080	-0.00743	-5.69	-1.48	
60	P97	N96	N97		P	120.0	322.8	0.300	-0.01740	-0.10	-0.25	
61	P98	N97	N82		P	120.0	58.9	0.300	-0.01843	-0.02	-0.26	
62	P99	N32	N98		P	120.0	287.0	0.080	-0.00283	-1.85	-0.56	
63	P100	N98	N99		P	120.0	97.5	0.080	0.00480	1.67	0.95	
64	P101	N99	N33		P	120.0	288.1	0.080	0.00126	0.42	0.25	
65	P102	N99	N45		P	120.0	466.5	0.080	0.00237	2.16	0.47	
66	P103	N32	N100		P	120.0	611.2	0.100	0.00006	0.00	0.01	
67	P104	N100	NV15_1	0.00000	P	120.0	127.4	0.100	0.00000	0.00	0.00	
68	P105	N101	N102		P	120.0	117.9	0.100	0.00000	0.00	0.00	
69	P106	N102	N103		P	120.0	133.8	0.100	-0.00016	0.00	-0.02	
70	P107	N103	N104		P	120.0	141.9	0.100	-0.00032	-0.01	-0.04	
71	P108	N104	N105		P	120.0	262.8	0.100	-0.00050	-0.02	-0.06	
72	P109	N105	N106		P	120.0	76.1	0.100	-0.00050	-0.01	-0.06	
73	P112	N108	N109		P	120.0	24.1	0.100	-0.00054	0.00	-0.07	
74	P113	N109	N110		P	120.0	163.0	0.100	-0.00054	-0.02	-0.07	
75	P114	N110	N111		P	120.0	493.3	0.100	-0.00054	-0.05	-0.07	
76	P115	N111	N112		P	120.0	137.2	0.100	-0.00054	-0.01	-0.07	
77	P116	N112	N113		P	120.0	18.5	0.100	-0.00054	0.00	-0.07	

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78	P117	N113	N114		P	120.0	69.0	0.100	-0.00054	-0.01	-0.07
79	P118	N114	N115		P	120.0	249.8	0.200	-0.00054	0.00	-0.02
80	P119	N115	N116		P	120.0	280.0	0.200	-0.00054	0.00	-0.02
81	P123	N120	N121		P	120.0	64.5	0.250	-0.01207	-0.02	-0.25
82	P124	N121	N122		P	120.0	32.4	0.250	-0.01207	-0.01	-0.25
83	P125	N122	N123		P	120.0	71.1	0.250	-0.01207	-0.03	-0.25
84	P126	N123	N124		P	120.0	41.9	0.250	-0.01207	-0.02	-0.25
85	P127	N124	N125		P	120.0	48.5	0.250	-0.01207	-0.02	-0.25
86	P128	N125	N126		P	120.0	98.1	0.250	-0.01207	-0.04	-0.25
87	P129	N126	N127		P	120.0	36.7	0.250	-0.01207	-0.01	-0.25
88	P130	N127	N128		P	120.0	89.2	0.250	-0.01207	-0.03	-0.25
89	P131	N128	N129		P	120.0	140.2	0.250	-0.01207	-0.05	-0.25
90	P132	N129	N130		P	120.0	117.5	0.250	-0.01207	-0.04	-0.25
91	P133	N130	N131		P	120.0	31.5	0.250	-0.01207	-0.01	-0.25
92	P134	N131	N132		P	120.0	62.0	0.250	-0.01207	-0.02	-0.25
93	P135	N132	N133		P	120.0	56.5	0.250	-0.01207	-0.02	-0.25
94	P136	N133	N134		P	120.0	38.7	0.250	-0.01207	-0.01	-0.25
95	P137	N134	N135		P	120.0	67.3	0.250	-0.01207	-0.02	-0.25
96	P138	N135	N136		P	120.0	25.3	0.250	-0.01207	-0.01	-0.25
97	P139	N136	N137		P	120.0	60.4	0.250	-0.01207	-0.02	-0.25
98	P140	N137	N138		P	120.0	47.0	0.250	-0.01207	-0.02	-0.25
99	P141	N139	N140		P	120.0	70.9	0.400	0.00000	0.00	0.00
100	P142	N140	N141		P	120.0	22.7	0.400	0.00000	0.00	0.00
101	P143	N141	N142		P	120.0	72.5	0.400	0.00000	0.00	0.00
102	P144	N142	N143		P	120.0	43.8	0.400	0.00000	0.00	0.00
103	P145	N143	N144		P	120.0	54.9	0.400	0.00000	0.00	0.00
104	P146	N144	N145		P	120.0	59.6	0.400	0.00000	0.00	0.00
105	P147	N145	N146		P	120.0	29.9	0.400	0.00000	0.00	0.00
106	P148	N146	N147		P	120.0	103.9	0.400	0.00000	0.00	0.00
107	P149	N147	N148		P	120.0	149.3	0.400	0.00000	0.00	0.00
108	P150	N148	N149		P	120.0	97.2	0.400	0.00000	0.00	0.00
109	P151	N149	N150		P	120.0	32.7	0.400	0.00000	0.00	0.00
110	P152	N150	N151		P	120.0	99.5	0.400	0.00000	0.00	0.00
111	P153	N151	N152		P	120.0	55.5	0.400	0.00000	0.00	0.00
112	P154	N152	N153		P	120.0	26.0	0.400	0.00000	0.00	0.00
113	P155	N153	N154		P	120.0	79.6	0.400	0.00000	0.00	0.00
114	P156	N154	N155		P	120.0	30.0	0.400	0.00000	0.00	0.00
115	P157	N155	N156		P	120.0	51.9	0.400	0.00000	0.00	0.00
116	P160	N159	N160		P	120.0	66.0	0.250	0.00547	0.01	0.11
117	P161	N161	N162		P	120.0	59.4	0.200	0.00322	0.01	0.10
118	P162	N162	N163		P	120.0	22.3	0.200	0.00322	0.00	0.10
119	P163	N163	N164		P	120.0	52.6	0.200	0.00322	0.00	0.10
120	P164	N164	N165		P	120.0	34.7	0.200	0.00322	0.00	0.10
121	P165	N165	N166		P	120.0	54.2	0.200	0.00322	0.01	0.10
122	P166	N166	N167		P	120.0	70.6	0.200	0.00322	0.01	0.10
123	P167	N167	N168		P	120.0	80.1	0.200	0.00322	0.01	0.10
124	P168	N168	N169		P	120.0	88.2	0.200	0.00322	0.01	0.10
125	P169	N169	N170		P	120.0	120.2	0.200	0.00322	0.01	0.10
126	P170	N170	N171		P	120.0	93.0	0.200	0.00322	0.01	0.10
127	P171	N171	N172		P	120.0	30.6	0.200	0.00322	0.00	0.10
128	P172	N172	N173		P	120.0	73.6	0.200	0.00322	0.01	0.10
129	P173	N173	N174		P	120.0	56.7	0.200	0.00322	0.01	0.10
130	P174	N174	N175		P	120.0	53.5	0.200	0.00322	0.01	0.10
131	P175	N175	N176		P	120.0	71.3	0.200	0.00322	0.01	0.10
132	P176	N176	N177		P	120.0	36.1	0.200	0.00322	0.00	0.10
133	P177	N177	N178		P	120.0	70.9	0.200	0.00322	0.01	0.10
134	P178	N178	N179		P	120.0	90.9	0.200	0.00322	0.01	0.10
135	P179	N179	N180		P	120.0	55.4	0.200	0.00307	0.00	0.10
136	P185	N185	N186		P	120.0	295.1	0.200	-0.00600	-0.09	-0.19
137	P186	N186	N187		P	120.0	277.3	0.200	-0.00600	-0.08	-0.19
138	P187	N187	N188		P	120.0	78.5	0.200	-0.00600	-0.02	-0.19
139	P188	N188	N189		P	120.0	145.3	0.200	-0.00600	-0.04	-0.19
140	P189	N189	N190		P	120.0	442.2	0.200	-0.00600	-0.13	-0.19
141	P190	N190	N191		P	120.0	120.6	0.200	-0.00600	-0.04	-0.19
142	P191	N191	NV12_1	0.00000	P	120.0	46.8	0.200	0.00050	0.00	0.02
143	P192	N191	N193		P	120.0	101.8	0.200	-0.00651	-0.04	-0.21
144	P193	N192	N194		P	120.0	61.6	0.200	0.00000	0.00	0.00
145	P194	N194	N195		P	120.0	75.1	0.200	0.00000	0.00	0.00
146	P195	N195	N196		P	120.0	167.6	0.200	-0.00003	0.00	0.00
147	P196	N196	N197		P	120.0	81.0	0.200	-0.00003	0.00	0.00
148	P197	N197	N198		P	120.0	256.9	0.200	-0.00016	0.00	-0.01
149	P198	N198	N199		P	120.0	145.9	0.200	-0.00019	0.00	-0.01
150	P199	N199	N200		P	120.0	143.8	0.200	-0.00041	0.00	-0.01
151	P200	N200	N201		P	120.0	98.0	0.200	-0.00054	0.00	-0.02
152	P202	N203	N204		P	120.0	111.1	0.300	-0.03016	-0.09	-0.43
153	P203	N204	N205		P	120.0	209.1	0.300	-0.03057	-0.18	-0.43
154	P204	N205	N206		P	120.0	73.9	0.300	-0.03082	-0.06	-0.44
155	P205	N206	N1173	0.00000	P	120.0	44.5	0.300	-0.03142	-0.04	-0.44
156	P206	N208	N209		P	120.0	66.3	0.400	-0.03549	-0.02	-0.28
157	P207	N209	N1182	0.00000	P	120.0	222.7	0.400	-0.03549	-0.06	-0.28
158	P208	N210	N211		P	120.0	185.0	0.400	-0.03653	-0.05	-0.29
159	P209	N211	N212		P	120.0	294.8	0.400	-0.03653	-0.09	-0.29
160	P210	N212	NV63_1	0.00000	P	120.0	23.8	0.400	0.00000	0.00	0.00
161	P211	N213	N214		P	120.0	413.2	0.400	0.00000	0.00	0.00

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162	P212	N207	N215		P	120.0	59.0	0.300	-0.03549	-0.07	-0.50
163	P213	N215	N208		P	120.0	47.8	0.400	-0.03549	-0.01	-0.28
164	P216	N217	NV9_1	0.00000	P	120.0	14.0	0.250	0.00063	0.00	0.01
165	P217	N218	N219		P	120.0	82.7	0.250	0.00063	0.00	0.01
166	P218	N219	N220		P	120.0	211.6	0.250	0.00063	0.00	0.01
167	P219	N220	N221		P	120.0	211.2	0.250	0.00063	0.00	0.01
168	P220	N221	N222		P	120.0	77.9	0.250	0.00063	0.00	0.01
169	P221	N222	N223		P	120.0	167.2	0.250	0.00063	0.00	0.01
170	P222	N223	N224		P	120.0	74.0	0.250	0.00063	0.00	0.01
171	P223	N224	N225		P	120.0	134.8	0.250	0.00063	0.00	0.01
172	P224	N225	N226		P	120.0	50.4	0.250	0.00063	0.00	0.01
173	P225	N226	N1179	0.00000	P	120.0	250.7	0.250	0.00063	0.00	0.01
174	P226	N227	N228		P	120.0	167.1	0.250	0.00047	0.00	0.01
175	P227	N228	N229		P	120.0	284.2	0.250	0.00047	0.00	0.01
176	P228	N229	N64_1	0.00000	P	120.0	25.8	0.250	0.00000	0.00	0.00
177	P229	N230	N231		P	120.0	432.0	0.250	0.00000	0.00	0.00
178	P232	N233	N234		P	120.0	99.0	0.250	-0.00016	0.00	0.00
179	P233	N234	N235		P	120.0	93.9	0.250	-0.00016	0.00	0.00
180	P234	N235	N236		P	120.0	80.4	0.250	-0.00016	0.00	0.00
181	P235	N236	N237		P	120.0	58.5	0.250	-0.00016	0.00	0.00
182	P236	N237	N238		P	120.0	56.7	0.250	-0.00016	0.00	0.00
183	P237	N238	N239		P	120.0	76.2	0.250	-0.00016	0.00	0.00
184	P238	N239	N240		P	120.0	28.2	0.250	-0.00016	0.00	0.00
185	P239	N240	N241		P	120.0	84.0	0.250	-0.00016	0.00	0.00
186	P240	N241	N242		P	120.0	115.5	0.250	-0.00016	0.00	0.00
187	P241	N242	N243		P	120.0	90.9	0.250	-0.00016	0.00	0.00
188	P242	N243	N244		P	120.0	88.2	0.250	-0.00016	0.00	0.00
189	P243	N244	N245		P	120.0	76.4	0.250	-0.00016	0.00	0.00
190	P244	N245	N246		P	120.0	63.1	0.250	-0.00016	0.00	0.00
191	P245	N246	N247		P	120.0	16.4	0.250	-0.00016	0.00	0.00
192	P246	N247	N248		P	120.0	47.2	0.250	-0.00016	0.00	0.00
193	P247	N248	N249		P	120.0	23.7	0.250	-0.00016	0.00	0.00
194	P248	N249	N250		P	120.0	48.8	0.250	-0.00016	0.00	0.00
195	P249	N251	N252		P	120.0	39.3	0.200	0.02086	0.12	0.66
196	P250	N252	N253		P	120.0	135.6	0.200	0.02058	0.40	0.65
197	P251	N253	N254		P	120.0	271.6	0.080	0.00250	1.39	0.50
198	P252	N254	N255		P	120.0	69.5	0.080	0.00225	0.29	0.45
199	P253	N255	N256		P	120.0	49.1	0.080	0.00221	0.20	0.44
200	P254	N256	N257		P	120.0	59.4	0.080	0.00212	0.22	0.42
201	P255	N257	N258		P	120.0	126.4	0.080	0.00193	0.40	0.38
202	P256	N258	N259		P	120.0	51.0	0.080	0.00177	0.14	0.35
203	P257	N259	N260		P	120.0	158.0	0.050	0.00032	0.17	0.16
204	P258	N259	N261		P	120.0	32.6	0.050	0.00136	0.54	0.69
205	P259	N261	N262		P	120.0	132.3	0.050	0.00117	1.65	0.60
206	P260	N262	N263		P	120.0	121.7	0.050	0.00092	0.97	0.47
207	P261	N263	N264		P	120.0	181.7	0.050	0.00032	0.20	0.16
208	P262	N263	N265		P	120.0	60.3	0.050	-0.00135	-0.98	-0.69
209	P263	N265	N266		P	120.0	41.7	0.050	-0.00148	-0.80	-0.75
210	P264	N266	N267		P	120.0	183.6	0.050	-0.00170	-4.55	-0.87
211	P265	N268	N269		P	120.0	175.9	0.050	0.00022	0.10	0.11
212	P266	N267	N270		P	120.0	44.9	0.050	0.00229	1.93	1.16
213	P267	N270	N268		P	120.0	367.6	0.050	0.00076	2.03	0.39
214	P268	N270	N271		P	120.0	33.3	0.050	0.00125	0.46	0.63
215	P269	N271	N272		P	120.0	77.4	0.080	0.00099	0.07	0.20
216	P270	N272	N273		P	120.0	69.2	0.080	0.00090	0.05	0.18
217	P271	N273	N274		P	120.0	62.6	0.080	0.00084	0.04	0.17
218	P272	N274	N275		P	120.0	32.5	0.080	0.00084	0.02	0.17
219	P273	N275	N276		P	120.0	101.7	0.050	0.00054	0.30	0.28
220	P274	N276	N277		P	120.0	214.1	0.050	0.00003	0.00	0.02
221	P275	N277	N278		P	120.0	62.7	0.050	-0.00060	-0.23	-0.31
222	P276	N278	N279		P	120.0	112.2	0.050	-0.00011	-0.02	-0.05
223	P277	N279	N280		P	120.0	82.4	0.050	-0.00020	-0.04	-0.10
224	P278	N280	N275		P	120.0	33.8	0.050	-0.00023	-0.02	-0.12
225	P279	N278	N281		P	120.0	169.0	0.050	-0.00059	-0.60	-0.30
226	P280	N281	N282		P	120.0	114.1	0.050	-0.00075	-0.62	-0.38
227	P281	N282	N283		P	120.0	181.0	0.050	-0.00097	-1.59	-0.49
228	P282	N283	N284		P	120.0	30.2	0.200	-0.00116	0.00	-0.04
229	P283	N284	N285		P	120.0	188.2	0.200	0.00487	0.04	0.15
230	P284	N285	N286		P	120.0	111.5	0.200	0.00465	0.02	0.15
231	P285	N286	N287		P	120.0	188.6	0.200	0.00449	0.03	0.14
232	P286	N287	N288		P	120.0	159.0	0.200	0.00430	0.03	0.14
233	P287	N288	N289		P	120.0	104.4	0.200	0.00418	0.02	0.13
234	P288	N289	N290		P	120.0	108.2	0.200	0.00408	0.02	0.13
235	P289	N290	N267		P	120.0	21.1	0.200	0.00405	0.00	0.13
236	P290	N253	N291		P	120.0	198.1	0.200	0.01786	0.44	0.57
237	P291	N291	N292		P	120.0	48.0	0.050	0.00067	0.21	0.34
238	P292	N292	N293		P	120.0	135.6	0.050	0.00054	0.40	0.27
239	P293	N293	N294		P	120.0	227.0	0.100	0.00525	1.55	0.67
240	P294	N294	N295		P	120.0	53.3	0.100	0.00475	0.30	0.60
241	P295	N295	N296		P	120.0	174.4	0.100	0.00459	0.93	0.58
242	P296	N296	N297		P	120.0	59.9	0.100	0.00443	0.30	0.56
243	P297	N297	N298		P	120.0	199.8	0.100	0.00374	0.73	0.48
244	P298	N298	N299		P	120.0	253.9	0.100	0.00320	0.69	0.41
245	P301	N302	N303		P	120.0	111.1	0.050	-0.00022	-0.06	-0.11

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246	P302	N303	N304		P	120.0	28.1	0.050	-0.00038	-0.04	-0.19
247	P303	N304	N305		P	120.0	67.0	0.050	-0.00017	-0.02	-0.08
248	P304	N306	N307		P	120.0	192.5	0.080	0.00050	0.05	0.10
249	P305	N307	N304		P	120.0	178.5	0.080	0.00037	0.03	0.07
250	P306	N305	N308		P	120.0	159.2	0.050	-0.00026	-0.12	-0.13
251	P307	N308	N306		P	120.0	238.7	0.080	0.00053	0.07	0.10
252	P308	N308	N309		P	120.0	35.6	0.080	-0.00098	-0.03	-0.19
253	P309	N309	N310		P	120.0	708.9	0.080	-0.00110	-0.80	-0.22
254	P310	N291	N311		P	120.0	132.6	0.200	0.01710	0.27	0.54
255	P311	N311	N312		P	120.0	55.7	0.200	0.00290	0.00	0.09
256	P312	N314	N315		P	120.0	131.6	0.050	-0.00009	-0.02	-0.05
257	P313	N315	N316		P	120.0	72.7	0.050	-0.00038	-0.11	-0.19
258	P314	N316	N317		P	120.0	173.3	0.050	0.00019	0.07	0.10
259	P315	N311	NV22_1	0.00000	P	120.0	583.8	0.200	0.00923	0.39	0.29
260	P316	N312	N316		P	120.0	35.8	0.200	0.00142	0.00	0.05
261	P317	N263	N319		P	120.0	64.9	0.050	0.00187	1.91	0.95
262	P318	N319	N320		P	120.0	92.9	0.050	0.00177	2.48	0.90
263	P319	N320	N321		P	120.0	58.6	0.050	0.00124	0.80	0.63
264	P320	N321	N322		P	120.0	76.5	0.050	0.00101	0.73	0.52
265	P321	N322	N323		P	120.0	47.1	0.050	0.00079	0.29	0.40
266	P322	N323	N324		P	120.0	64.7	0.050	0.00064	0.26	0.32
267	P323	N324	N325		P	120.0	54.8	0.050	0.00045	0.12	0.23
268	P324	N325	N326		P	120.0	113.8	0.050	0.00038	0.18	0.20
269	P325	N326	N327		P	120.0	227.0	0.050	0.00019	0.10	0.10
270	P326	N326	N328		P	120.0	310.4	0.050	0.00007	0.02	0.04
271	P327	N328	N329		P	120.0	59.0	0.050	-0.00132	-0.91	-0.67
272	P329	N300	N331		P	120.0	26.8	0.050	0.00063	0.11	0.32
273	P330	N331	N332		P	120.0	28.0	0.050	0.00044	0.06	0.22
274	P331	N332	N333		P	120.0	43.7	0.050	0.00013	0.01	0.06
275	P332	N333	N334		P	120.0	17.1	0.050	0.00006	0.00	0.03
276	P333	N334	N335		P	120.0	37.4	0.050	0.00003	0.00	0.02
277	P334	N328	N336		P	120.0	291.8	0.050	0.00117	3.60	0.59
278	P335	N336	N337		P	120.0	31.3	0.050	0.00082	0.20	0.42
279	P336	N337	N338		P	120.0	146.1	0.050	0.00072	0.75	0.37
280	P337	N310	NV21_1	0.00000	P	120.0	173.1	0.100	-0.00132	-0.09	-0.17
281	P338	N339	N340		P	120.0	94.4	0.050	0.00095	0.79	0.48
282	P339	N340	N341		P	120.0	45.8	0.050	0.00060	0.16	0.30
283	P340	N341	N342		P	120.0	171.2	0.080	0.00009	0.00	0.02
284	P341	N318	N343		P	120.0	37.6	0.200	0.00917	0.02	0.29
285	P342	N343	N344		P	120.0	67.6	0.200	0.00898	0.04	0.29
286	P343	N344	N345		P	120.0	208.3	0.200	0.00863	0.12	0.27
287	P344	N345	N346		P	120.0	314.7	0.200	0.00756	0.14	0.24
288	P345	N339	N347		P	120.0	203.1	0.150	-0.00243	-0.05	-0.14
289	P346	N347	N348		P	120.0	238.4	0.050	0.00102	2.30	0.52
290	P347	N348	N349		P	120.0	124.1	0.050	0.00025	0.09	0.13
291	P348	N348	N350		P	120.0	122.0	0.050	0.00071	0.59	0.36
292	P349	N350	N351		P	120.0	128.7	0.050	0.00045	0.28	0.23
293	P350	N351	N352		P	120.0	69.4	0.050	0.00020	0.03	0.10
294	P351	N352	N353		P	120.0	56.3	0.050	0.00047	0.13	0.24
295	P352	N353	N354		P	120.0	134.0	0.050	0.00013	0.03	0.06
296	P353	N352	N355		P	120.0	218.7	0.050	-0.00125	-3.06	-0.64
297	P354	N355	N356		P	120.0	49.8	0.080	-0.00010	0.00	-0.02
298	P355	N356	N357		P	120.0	392.4	0.080	-0.00026	-0.03	-0.05
299	P356	N357	N358		P	120.0	102.0	0.080	-0.00058	-0.03	-0.11
300	P357	N358	N359		P	120.0	611.4	0.080	-0.00080	-0.38	-0.16
301	P358	N359	N360		P	120.0	156.9	0.150	0.00500	0.14	0.28
302	P359	N360	N355		P	120.0	209.0	0.080	0.00127	0.31	0.25
303	P360	N347	N360		P	120.0	362.8	0.150	-0.00360	-0.17	-0.20
304	P361	N352	N361		P	120.0	31.2	0.050	0.00072	0.16	0.37
305	P362	N361	N362		P	120.0	177.1	0.050	0.00025	0.13	0.13
306	P363	N361	N363		P	120.0	146.6	0.050	0.00022	0.08	0.11
307	P364	N363	N364		P	120.0	167.2	0.050	0.00003	0.00	0.02
308	P365	N346	N365		P	120.0	199.1	0.200	0.00750	0.09	0.24
309	P366	N365	N366		P	120.0	114.0	0.200	0.00044	0.00	0.01
310	P367	N359	N367		P	120.0	125.3	0.150	0.00025	0.00	0.01
311	P368	N367	NV23_1	0.00000	P	120.0	138.0	0.150	0.00000	0.00	0.00
312	P369	N368	N369	0.00000	P	120.0	77.4	0.150	-0.01054	-0.27	-0.60
313	P370	N369	N370		P	120.0	33.2	0.150	-0.01086	-0.12	-0.61
314	P371	N370	N371		P	120.0	131.5	0.150	-0.01130	-0.51	-0.64
315	P372	N371	N1165	0.00000	P	120.0	77.7	0.150	-0.01130	-0.30	-0.64
316	P373	N372	N373		P	120.0	198.1	0.150	-0.01600	-1.47	-0.91
317	P374	N373	N374		P	120.0	64.1	0.250	-0.03970	-0.21	-0.81
318	P375	N374	N375		P	120.0	12.7	0.250	0.00135	0.00	0.03
319	P376	N375	N376		P	120.0	13.5	0.250	0.00090	0.00	0.02
320	P377	N376	N377		P	120.0	56.6	0.250	0.00032	0.00	0.01
321	P378	N377	N378		P	120.0	64.0	0.250	0.00006	0.00	0.00
322	P379	N376	N379		P	120.0	287.6	0.250	0.00019	0.00	0.00
323	P380	N374	N380		P	120.0	231.3	0.250	-0.04150	-0.83	-0.85
324	P381	N380	N381		P	120.0	54.4	0.250	-0.04182	-0.20	-0.85
325	P382	N382	N383		P	120.0	252.1	0.050	0.00058	0.85	0.29
326	P383	N384	N385		P	120.0	64.8	0.250	0.00218	0.00	0.04
327	P384	N385	N386		P	120.0	117.0	0.250	0.00032	0.00	0.01
328	P385	N387	NV17_1	0.00000	P	120.0	48.5	0.250	0.01215	0.02	0.25
329	P388	N390	N391		P	120.0	59.4	0.100	0.00000	0.00	0.00

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330	P389	N381	N392		P	120.0	147.4	0.250	-0.04246	-0.55	-0.86
331	P390	N393	N394		P	120.0	65.1	0.250	-0.04025	-0.22	-0.82
332	P392	N396	N397		P	120.0	224.0	0.250	-0.04380	-0.89	-0.89
333	P393	N397	N384		P	120.0	206.7	0.250	0.00218	0.00	0.04
334	P394	N395	N387		P	120.0	322.1	0.250	-0.04147	-1.16	-0.84
335	P395	N397	N398		P	120.0	83.5	0.250	-0.04605	-0.36	-0.94
336	P396	N398	NV18_1	0.00000	P	120.0	56.1	0.250	0.00000	0.00	0.00
337	P398	N400	N401		P	120.0	123.0	0.250	-0.00282	0.00	-0.06
338	P399	N1194	N402		P	120.0	38.2	0.080	0.00155	0.08	0.31
339	P400	N402	N403		P	120.0	40.2	0.080	0.00155	0.08	0.31
340	P401	N404	N405		P	120.0	18.0	0.080	0.00155	0.04	0.31
341	P402	N406	N407		P	120.0	18.6	0.080	0.00129	0.03	0.26
342	P403	N407	N408		P	120.0	64.2	0.080	0.00116	0.08	0.23
343	P404	N408	N409		P	120.0	47.3	0.080	0.00097	0.04	0.19
344	P405	N409	N410		P	120.0	57.7	0.080	0.00078	0.03	0.16
345	P410	N415	N416		P	120.0	217.8	0.080	0.00123	0.30	0.25
346	P411	N416	N417		P	120.0	147.9	0.080	-0.00054	-0.04	-0.11
347	P414	N419	N420		P	120.0	124.5	0.250	0.00301	0.00	0.06
348	P415	N420	N421		P	120.0	39.3	0.250	0.00231	0.00	0.05
349	P416	N421	N422		P	120.0	44.1	0.250	0.00173	0.00	0.04
350	P417	N422	N423		P	120.0	54.8	0.250	0.00167	0.00	0.03
351	P418	N423	N424		P	120.0	46.0	0.250	0.00154	0.00	0.03
352	P419	N424	N425		P	120.0	64.8	0.250	0.00147	0.00	0.03
353	P420	N425	N426		P	120.0	48.0	0.250	0.00115	0.00	0.02
354	P421	N426	N427		P	120.0	129.1	0.250	0.00103	0.00	0.02
355	P422	N427	NV61_1	0.00000	P	120.0	31.1	0.250	0.00096	0.00	0.02
356	P423	N428	N429		P	120.0	88.7	0.250	-0.00090	0.00	-0.02
357	P424	N429	N430		P	120.0	76.8	0.250	-0.00103	0.00	-0.02
358	P425	N430	N431		P	120.0	26.9	0.250	-0.00131	0.00	-0.03
359	P426	N431	N432		P	120.0	35.1	0.250	-0.00209	0.00	-0.04
360	P427	N432	N433		P	120.0	37.0	0.250	-0.00256	0.00	-0.05
361	P428	N433	N434		P	120.0	42.1	0.250	-0.00302	0.00	-0.06
362	P429	N435	N436		P	120.0	50.1	0.250	-0.00724	-0.01	-0.15
363	P430	N436	N437		P	120.0	267.8	0.250	-0.00739	-0.04	-0.15
364	P431	N437	N438		P	120.0	137.2	0.250	-0.00786	-0.02	-0.16
365	P432	N434	N439		P	120.0	64.9	0.250	-0.00349	0.00	-0.07
366	P433	N439	N440		P	120.0	42.6	0.250	-0.00490	0.00	-0.10
367	P436	N442	N443		P	120.0	59.6	0.250	-0.00407	0.00	-0.08
368	P437	N438	N444		P	120.0	91.6	0.250	-0.00802	-0.02	-0.16
369	P438	N444	N445		P	120.0	186.7	0.250	-0.00833	-0.03	-0.17
370	P439	N445	N446		P	120.0	51.2	0.250	-0.00833	-0.01	-0.17
371	P440	N446	N447		P	120.0	160.4	0.250	-0.00833	-0.03	-0.17
372	P441	N447	N448		P	120.0	40.3	0.250	-0.00926	-0.01	-0.19
373	P442	N448	N449		P	120.0	41.7	0.250	-0.01004	-0.01	-0.20
374	P443	N449	N450		P	120.0	74.7	0.250	-0.01113	-0.02	-0.23
375	P444	N450	N451		P	120.0	50.2	0.250	-0.01160	-0.02	-0.24
376	P446	N160	N452		P	120.0	44.0	0.250	0.00547	0.00	0.11
377	P447	N452	N453		P	120.0	78.0	0.250	0.00531	0.01	0.11
378	P448	N453	N454		P	120.0	38.0	0.250	0.00485	0.00	0.10
379	P449	N454	N455		P	120.0	50.0	0.250	0.00453	0.00	0.09
380	P450	N455	N456		P	120.0	160.1	0.250	0.00453	0.01	0.09
381	P451	N456	N457		P	120.0	38.8	0.250	0.00453	0.00	0.09
382	P452	N457	N458		P	120.0	177.7	0.250	0.00453	0.01	0.09
383	P453	N458	N459		P	120.0	101.9	0.250	0.00453	0.01	0.09
384	P454	N459	N460		P	120.0	124.5	0.250	0.00453	0.01	0.09
385	P455	N460	N443		P	120.0	275.3	0.250	0.00453	0.02	0.09
386	P457	N461	N462		P	120.0	43.9	0.250	0.00282	0.00	0.06
387	P458	N462	N463		P	120.0	40.9	0.250	0.00282	0.00	0.06
388	P459	N463	N464		P	120.0	67.3	0.250	0.00282	0.00	0.06
389	P460	N464	N465		P	120.0	40.9	0.250	0.00282	0.00	0.06
390	P461	N465	N466		P	120.0	31.3	0.250	0.00282	0.00	0.06
391	P462	N466	N467		P	120.0	38.3	0.250	0.00282	0.00	0.06
392	P463	N467	N468		P	120.0	28.5	0.250	0.00282	0.00	0.06
393	P464	N468	N469		P	120.0	69.2	0.250	0.00282	0.00	0.06
394	P465	N469	N470		P	120.0	90.6	0.250	0.00282	0.00	0.06
395	P466	N470	N471	0.00000	P	120.0	63.9	0.250	0.00282	0.00	0.06
396	P467	N471	N472		P	120.0	130.9	0.250	0.00282	0.00	0.06
397	P468	N472	N473		P	120.0	52.0	0.250	0.00282	0.00	0.06
398	P469	N473	N474		P	120.0	59.6	0.250	0.00282	0.00	0.06
399	P470	N474	N475		P	120.0	53.1	0.250	0.00282	0.00	0.06
400	P471	N475	N476		P	120.0	31.9	0.250	0.00282	0.00	0.06
401	P472	N476	N477		P	120.0	29.6	0.250	0.00282	0.00	0.06
402	P473	N477	N478		P	120.0	39.8	0.250	0.00282	0.00	0.06
403	P474	N478	N479		P	120.0	26.6	0.250	0.00282	0.00	0.06
404	P475	N479	N480		P	120.0	111.9	0.250	0.00282	0.00	0.06
405	P476	N480	N401		P	120.0	50.3	0.250	0.00282	0.00	0.06
406	P477	N393	N481		P	120.0	52.1	0.250	0.03897	0.17	0.79
407	P478	N481	N482		P	120.0	67.7	0.250	0.03897	0.22	0.79
408	P479	N482	N483		P	120.0	324.0	0.250	0.03897	1.04	0.79
409	P480	N483	N373		P	120.0	29.2	0.150	0.02416	0.47	1.37
410	P481	N483	N484		P	120.0	338.3	0.150	0.01481	2.18	0.84
411	P482	N484	N485		P	120.0	223.8	0.150	0.01449	1.39	0.82
412	P484	N486	N487		P	120.0	82.0	0.080	0.00245	0.40	0.49
413	P485	N487	N488		P	120.0	73.9	0.080	0.00053	0.02	0.10

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414	P486	N488	N489		P	120.0	48.3	0.080	0.00027	0.00	0.05
415	P487	N489	N490		P	120.0	53.9	0.080	-0.00005	0.00	-0.01
416	P488	N490	N491		P	120.0	59.6	0.080	-0.00037	-0.01	-0.07
417	P489	N491	N492		P	120.0	69.0	0.080	-0.00076	-0.04	-0.15
418	P490	N492	NV27_1	0.00000	P	120.0	12.3	0.150	0.00000	0.00	0.00
419	P491	N493	N494		P	120.0	80.0	0.150	-0.00058	0.00	-0.03
420	P492	N494	N495		P	120.0	38.7	0.150	-0.00070	0.00	-0.04
421	P493	N495	N496		P	120.0	118.1	0.150	-0.00077	0.00	-0.04
422	P494	N496	N497		P	120.0	86.6	0.150	-0.00096	0.00	-0.05
423	P495	N497	N498		P	120.0	142.1	0.150	-0.00096	-0.01	-0.05
424	P496	N498	N499		P	120.0	345.0	0.150	-0.00096	-0.01	-0.05
425	P499	N501	N502		P	120.0	63.1	0.080	-0.00309	-0.48	-0.61
426	P500	N502	N503		P	120.0	37.3	0.080	-0.00309	-0.28	-0.61
427	P501	N503	N504		P	120.0	240.2	0.080	-0.00309	-1.82	-0.61
428	P502	N504	N505		P	120.0	104.6	0.080	-0.00322	-0.85	-0.64
429	P503	N505	N506		P	120.0	413.1	0.080	0.00186	1.23	0.37
430	P504	N506	N507		P	120.0	35.2	0.080	0.00116	0.04	0.23
431	P505	N507	N508		P	120.0	429.5	0.080	-0.00190	-1.32	-0.38
432	P506	N508	N509		P	120.0	85.5	0.150	-0.00826	-0.19	-0.47
433	P507	N509	N510		P	120.0	131.1	0.250	-0.02123	-0.14	-0.43
434	P508	N510	N511		P	120.0	135.4	0.250	-0.04729	-0.62	-0.96
435	P509	N511	N373		P	120.0	339.3	0.250	-0.04767	-1.58	-0.97
436	P510	N368	N512		P	120.0	14.7	0.150	0.01029	0.05	0.58
437	P511	N512	N513		P	120.0	465.6	0.080	0.00236	2.14	0.47
438	P512	N513	N514		P	120.0	81.3	0.050	0.00141	1.42	0.72
439	P513	N514	N515		P	120.0	100.6	0.050	0.00045	0.21	0.23
440	P514	N515	N516		P	120.0	119.8	0.050	0.00026	0.09	0.13
441	P515	N513	N517		P	120.0	157.5	0.050	0.00057	0.51	0.29
442	P516	N517	N518		P	120.0	329.5	0.080	0.00013	0.01	0.03
443	P517	N512	N519		P	120.0	23.0	0.150	0.00748	0.04	0.42
444	P518	N519	N520		P	120.0	146.2	0.080	0.00374	1.58	0.74
445	P519	N520	N521		P	120.0	235.4	0.050	0.00026	0.18	0.13
446	P520	N520	N522		P	120.0	68.6	0.080	0.00326	0.58	0.65
447	P521	N522	N523		P	120.0	304.6	0.050	0.00019	0.13	0.10
448	P522	N522	N524		P	120.0	31.2	0.080	0.00301	0.22	0.60
449	P523	N524	N525		P	120.0	284.8	0.050	0.00051	0.76	0.26
450	P524	N525	N526		P	120.0	222.4	0.050	0.00022	0.13	0.11
451	P525	N526	N527		P	120.0	290.3	0.080	0.00009	0.00	0.02
452	P526	N527	N524		P	120.0	250.5	0.080	-0.00205	-0.89	-0.41
453	P527	N527	N528		P	120.0	36.7	0.080	0.00147	0.07	0.29
454	P528	N528	N529		P	120.0	310.7	0.080	0.00064	0.13	0.13
455	P529	N529	N530		P	120.0	93.3	0.080	0.00019	0.00	0.04
456	P530	N528	N531		P	120.0	23.0	0.080	0.00032	0.00	0.06
457	P531	N531	N532		P	120.0	309.0	0.050	0.00013	0.06	0.07
458	P532	N533	N534		P	120.0	119.0	0.050	-0.00032	-0.13	-0.16
459	P533	N534	N535		P	120.0	171.8	0.085	-0.00054	-0.04	-0.09
460	P534	N535	N536		P	120.0	174.2	0.085	-0.00079	-0.08	-0.14
461	P535	N536	N537		P	120.0	263.1	0.085	-0.00092	-0.16	-0.16
462	P536	N537	N538		P	120.0	85.2	0.085	-0.00041	-0.01	-0.07
463	P537	N538	N539		P	120.0	310.7	0.085	0.00099	0.22	0.18
464	P538	N539	N540		P	120.0	98.8	0.085	0.00080	0.05	0.14
465	P539	N540	N541		P	120.0	81.1	0.085	0.00061	0.02	0.11
466	P540	N541	N542		P	120.0	27.8	0.085	0.00042	0.00	0.07
467	P541	N542	N543		P	120.0	16.6	0.085	0.00023	0.00	0.04
468	P542	N543	N534		P	120.0	58.2	0.050	-0.00003	0.00	-0.01
469	P543	N543	N544		P	120.0	33.2	0.050	0.00006	0.00	0.03
470	P544	N544	N545		P	120.0	86.3	0.050	0.00002	0.00	0.01
471	P545	N545	N546		P	120.0	160.5	0.050	0.00002	0.00	0.01
472	P546	N546	N547		P	120.0	89.3	0.050	0.00002	0.00	0.01
473	P547	N547	N548		P	120.0	78.0	0.050	0.00002	0.00	0.01
474	P548	N548	N549		P	120.0	39.5	0.050	-0.00024	-0.03	-0.12
475	P549	N549	N544		P	120.0	215.3	0.050	0.00009	0.02	0.05
476	P550	N549	N550		P	120.0	95.4	0.050	-0.00039	-0.16	-0.20
477	P551	N550	N551		P	120.0	40.4	0.080	0.00045	0.01	0.09
478	P552	N551	N552		P	120.0	113.9	0.080	0.00026	0.01	0.05
479	P553	N552	N553		P	120.0	71.0	0.080	0.00026	0.01	0.05
480	P554	N553	N554		P	120.0	47.6	0.080	0.00013	0.00	0.03
481	P555	N555	N556		P	120.0	91.8	0.080	-0.00060	-0.03	-0.12
482	P556	N556	N557		P	120.0	33.9	0.080	-0.00073	-0.02	-0.14
483	P557	N557	N558		P	120.0	267.6	0.080	-0.00105	-0.27	-0.21
484	P558	N559	N560		P	120.0	300.7	0.080	0.00038	0.05	0.08
485	P559	N519	N561		P	120.0	328.9	0.080	0.00329	2.81	0.66
486	P560	N561	N558		P	120.0	58.0	0.080	0.00156	0.12	0.31
487	P561	N561	N559		P	120.0	17.3	0.080	0.00154	0.04	0.31
488	P562	N559	N550		P	120.0	109.0	0.050	0.00103	1.07	0.53
489	P563	N366	NV24_1	0.00000	P	120.0	174.8	0.200	0.00000	0.00	0.00
490	P564	N555	N562		P	120.0	320.7	0.100	0.00028	0.01	0.04
491	P565	N562	N563		P	120.0	375.5	0.100	0.00015	0.00	0.02
492	P566	N563	N564		P	120.0	171.7	0.150	-0.02168	-2.24	-1.23
493	P567	N564	N565		P	120.0	83.2	0.100	-0.00272	-0.17	-0.35
494	P568	N565	N566		P	120.0	112.1	0.100	-0.00343	-0.35	-0.44
495	P569	N566	N507		P	120.0	400.3	0.150	0.00336	0.17	0.19
496	P570	N537	N567		P	120.0	120.3	0.085	-0.00064	-0.04	-0.11
497	P571	N567	N568		P	120.0	71.0	0.085	-0.00102	-0.05	-0.18

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498	P572	N568	N569		P	120.0	197.1	0.085	-0.00071	-0.07	-0.13
499	P573	N569	N570		P	120.0	39.1	0.085	0.00192	0.09	0.34
500	P574	N570	N538		P	120.0	32.6	0.085	0.00166	0.06	0.29
501	P575	N569	N571		P	120.0	52.9	0.125	-0.00321	-0.05	-0.26
502	P576	N571	N563		P	120.0	26.6	0.150	-0.02119	-0.33	-1.20
503	P577	N571	N572		P	120.0	27.4	0.150	0.00430	0.02	0.24
504	P578	N572	N573		P	120.0	14.6	0.060	0.00026	0.00	0.09
505	P579	N573	N574		P	120.0	239.0	0.060	0.00013	0.02	0.05
506	P580	N574	N575		P	120.0	85.0	0.060	0.00006	0.00	0.02
507	P581	N572	N576		P	120.0	164.6	0.150	0.00405	0.10	0.23
508	P582	N576	N568		P	120.0	41.7	0.085	0.00050	0.01	0.09
509	P583	N576	N577		P	120.0	173.4	0.150	0.00342	0.07	0.19
510	P584	N577	N578		P	120.0	46.5	0.050	0.00291	3.10	1.48
511	P585	N579	N580		P	120.0	141.8	0.065	0.00064	0.16	0.19
512	P586	N580	N581		P	120.0	224.6	0.065	0.00051	0.17	0.15
513	P587	N581	N582		P	120.0	38.3	0.065	0.00051	0.03	0.15
514	P593	N492	N588		P	120.0	81.8	0.150	-0.00108	0.00	-0.06
515	P594	N588	N589		P	120.0	59.2	0.150	-0.00120	0.00	-0.07
516	P595	N589	N590		P	120.0	74.4	0.150	-0.00146	-0.01	-0.08
517	P596	N590	N591		P	120.0	149.8	0.150	-0.00159	-0.02	-0.09
518	P597	N591	N592		P	120.0	65.2	0.150	-0.00185	-0.01	-0.10
519	P598	N592	N593		P	120.0	37.9	0.150	-0.00210	-0.01	-0.12
520	P599	N593	NV3_1	0.00000	P	120.0	27.9	0.150	-0.00281	-0.01	-0.16
521	P600	N594	N595		P	120.0	18.7	0.150	-0.00461	-0.01	-0.26
522	P602	N595	N596		P	120.0	84.0	0.150	0.00418	0.05	0.24
523	P603	N596	N597		P	120.0	335.2	0.150	0.00412	0.20	0.23
524	P604	N597	N598		P	120.0	259.2	0.150	0.00380	0.13	0.21
525	P605	N598	N599		P	120.0	138.7	0.150	0.00367	0.07	0.21
526	P606	N599	N600		P	120.0	172.5	0.150	0.00265	0.05	0.15
527	P607	N600	N601		P	120.0	156.7	0.150	0.00162	0.02	0.09
528	P608	N601	N602		P	120.0	47.0	0.150	0.00079	0.00	0.04
529	P609	N602	NV2_1	0.00000	P	120.0	177.2	0.100	0.00034	0.01	0.04
530	P610	N603	N604		P	120.0	40.2	0.250	-0.02721	-0.07	-0.55
531	P611	N604	N605		P	120.0	358.4	0.250	-0.02743	-0.60	-0.56
532	P612	N605	N1008		P	120.0	81.2	0.250	-0.04154	-0.29	-0.85
533	P613	N607	N608		P	120.0	160.6	0.080	0.00037	0.02	0.07
534	P614	N608	N609		P	120.0	23.3	0.080	0.00028	0.00	0.06
535	P615	N609	N610		P	120.0	59.1	0.080	0.00028	0.01	0.06
536	P616	N610	N611		P	120.0	45.5	0.080	-0.00010	0.00	-0.02
537	P617	N611	N612		P	120.0	130.7	0.080	-0.00036	-0.02	-0.07
538	P618	N612	N1160	0.00000	P	120.0	65.7	0.080	-0.00042	-0.01	-0.08
539	P619	N613	N614		P	120.0	116.1	0.080	-0.00084	-0.08	-0.17
540	P620	N614	N607		P	120.0	268.4	0.080	0.00065	0.11	0.13
541	P621	N614	N615		P	120.0	152.7	0.080	-0.00187	-0.46	-0.37
542	P622	N615	N616		P	120.0	238.4	0.080	-0.00397	-2.88	-0.79
543	P623	N616	N617		P	120.0	26.5	0.080	-0.00455	-0.41	-0.91
544	P624	N617	N618		P	120.0	44.2	0.080	-0.00538	-0.94	-1.07
545	P625	N618	N619		P	120.0	26.3	0.100	-0.00276	-0.05	-0.35
546	P626	N619	N620		P	120.0	208.3	0.100	-0.00346	-0.66	-0.44
547	P627	N620	N564		P	120.0	431.6	0.100	-0.00926	-8.42	-1.18
548	P628	N615	N621		P	120.0	330.2	0.080	0.00127	0.48	0.25
549	P629	N622	N623		P	120.0	43.9	0.150	-0.00010	0.00	-0.01
550	P630	N623	N624		P	120.0	335.5	0.150	-0.00035	0.00	-0.02
551	P632	N624	N626		P	120.0	57.6	0.150	-0.00179	-0.01	-0.10
552	P634	N626	N627		P	120.0	163.1	0.100	-0.00359	-0.55	-0.46
553	P636	N628	N629		P	120.0	333.4	0.100	-0.00878	-5.89	-1.12
554	P637	N629	N583		P	120.0	84.4	0.100	-0.00885	-1.51	-1.13
555	P638	N578	N630		P	120.0	28.1	0.050	0.00156	0.59	0.79
556	P639	N630	N631		P	120.0	366.5	0.050	0.00150	7.16	0.76
557	P640	N631	N632		P	120.0	102.2	0.050	-0.00176	-2.71	-0.90
558	P641	N632	N633		P	120.0	198.6	0.100	-0.00433	-0.95	-0.55
559	P642	N633	N620		P	120.0	218.5	0.100	-0.00535	-1.54	-0.68
560	P643	N633	N634		P	120.0	89.5	0.100	0.00063	0.01	0.08
561	P644	N634	N635		P	120.0	183.7	0.100	0.00038	0.01	0.05
562	P645	N635	N636		P	120.0	124.8	0.080	0.00019	0.01	0.04
563	P646	N636	Nv00_1	0.00000	P	120.0	181.7	0.080	-0.00131	-0.28	-0.26
564	P647	N578	N637		P	120.0	15.7	0.050	0.00090	0.12	0.46
565	P648	N637	N638		P	120.0	154.5	0.050	0.00013	0.03	0.07
566	P649	N579	N639		P	120.0	117.8	0.065	-0.00096	-0.28	-0.29
567	P650	N639	N571		P	120.0	126.8	0.125	-0.01361	-1.70	-1.11
568	P651	N639	N640		P	120.0	436.4	0.125	0.01201	4.64	0.98
569	P652	N640	N641		P	120.0	115.1	0.065	0.00222	1.30	0.67
570	P653	N641	N642		P	120.0	420.7	0.065	0.00183	3.34	0.55
571	P654	N643	N644		P	120.0	71.5	0.080	0.00047	0.02	0.09
572	P655	N644	N645		P	120.0	53.0	0.080	0.00009	0.00	0.02
573	P656	N645	N646		P	120.0	154.7	0.080	-0.00011	0.00	-0.02
574	P657	N640	N647		P	120.0	180.3	0.125	0.00973	1.30	0.79
575	P658	N647	N648		P	120.0	231.9	0.125	0.00947	1.59	0.77
576	P659	N648	N649		P	120.0	42.8	0.100	0.00368	0.15	0.47
577	P660	N649	N650		P	120.0	48.6	0.100	0.00349	0.16	0.44
578	P661	N650	N651		P	120.0	204.5	0.100	0.00330	0.59	0.42
579	P662	N651	N652		P	120.0	152.1	0.100	0.00317	0.41	0.40
580	P663	N652	N653		P	120.0	76.3	0.100	0.00311	0.20	0.40
581	P664	N653	N654		P	120.0	49.0	0.100	0.00298	0.12	0.38

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582	P665	N654	N655		P	120.0	42.4	0.100	0.00272	0.09	0.35
583	P666	N655	N656		P	120.0	171.7	0.100	0.00100	0.05	0.13
584	P667	N656	N657		P	120.0	90.8	0.100	-0.00555	-0.69	-0.71
585	P668	N657	N658		P	120.0	13.1	0.100	-0.00212	-0.02	-0.27
586	P669	N658	N632		P	120.0	489.4	0.080	-0.00218	-1.95	-0.43
587	P670	N642	N659		P	120.0	20.5	0.080	-0.00054	-0.01	-0.11
588	P671	N659	N660		P	120.0	205.9	0.080	-0.00152	-0.42	-0.30
589	P672	N661	N648		P	120.0	174.9	0.125	-0.00572	-0.47	-0.47
590	P673	N643	N662		P	120.0	164.4	0.080	0.00013	0.00	0.03
591	P674	N643	N659		P	120.0	13.7	0.080	-0.00085	-0.01	-0.17
592	P675	N660	N663		P	120.0	219.0	0.080	-0.00172	-0.56	-0.34
593	P676	N663	N657		P	120.0	284.1	0.125	0.00350	0.31	0.28
594	P677	N663	N661		P	120.0	14.8	0.080	-0.00521	-0.29	-1.04
595	P678	N631	N664		P	120.0	81.4	0.150	0.00236	0.02	0.13
596	P679	N664	N665		P	120.0	205.5	0.150	0.00217	0.04	0.12
597	P680	N665	N666		P	120.0	127.1	0.150	0.00185	0.02	0.10
598	P681	N666	N667		P	120.0	104.2	0.150	0.00185	0.01	0.10
599	P682	N667	N668		P	120.0	94.6	0.150	0.00159	0.01	0.09
600	P683	N668	N669		P	120.0	32.1	0.150	0.00159	0.00	0.09
601	P684	N669	N670		P	120.0	47.2	0.150	-0.00019	0.00	-0.01
602	P685	N670	N671		P	120.0	131.5	0.150	-0.00032	0.00	-0.02
603	P686	N671	N672		P	120.0	41.5	0.150	-0.00038	0.00	-0.02
604	P687	N673	N656		P	120.0	38.5	0.115	-0.00574	-0.16	-0.55
605	P688	N656	N674		P	120.0	21.4	0.100	0.00068	0.00	0.09
606	P689	N674	N675		P	120.0	357.4	0.080	0.00013	0.01	0.03
607	P690	N675	N646		P	120.0	47.5	0.100	0.00011	0.00	0.01
608	P691	N675	N676		P	120.0	49.6	0.085	-0.00004	0.00	-0.01
609	P692	N676	N677		P	120.0	49.9	0.085	-0.00004	0.00	-0.01
610	P693	N677	N678		P	120.0	369.2	0.085	-0.00011	0.00	-0.02
611	P694	N678	N674		P	120.0	92.4	0.100	-0.00030	0.00	-0.04
612	P695	N642	N679		P	120.0	222.8	0.150	0.00084	0.01	0.05
613	P696	N679	N680		P	120.0	78.4	0.150	0.00071	0.00	0.04
614	P697	N680	N681		P	120.0	368.4	0.150	0.00052	0.00	0.03
615	P698	N681	N678		P	120.0	32.3	0.100	0.00007	0.00	0.01
616	P699	N681	N682		P	120.0	167.1	0.100	0.00026	0.00	0.03
617	P700	N682	N683		P	120.0	93.6	0.050	0.00038	0.15	0.20
618	P701	N683	N684		P	120.0	109.4	0.050	0.00026	0.08	0.13
619	P702	N685	N686		P	120.0	47.8	0.050	0.00051	0.13	0.26
620	P703	N686	N687		P	120.0	100.5	0.050	0.00038	0.16	0.20
621	P704	N688	N689		P	120.0	48.0	0.200	-0.00102	0.00	-0.03
622	P705	N689	N690		P	120.0	69.7	0.200	-0.00102	0.00	-0.03
623	P706	N691	N642		P	120.0	89.6	0.200	-0.00109	0.00	-0.03
624	P707	N691	NV29_1	0.00000	P	120.0	5.2	0.200	0.00000	0.00	0.00
625	P708	N692	N693		P	120.0	263.7	0.200	0.00523	0.06	0.17
626	P709	N693	N694		P	120.0	101.8	0.100	0.00523	0.69	0.67
627	P710	N694	N695	0.00000	P	120.0	203.7	0.100	0.00508	1.31	0.65
628	P711	N695	N696		P	120.0	69.4	0.100	0.00489	0.42	0.62
629	P712	N696	N697		P	120.0	420.0	0.100	0.00431	1.99	0.55
630	P713	N697	N698		P	120.0	132.9	0.100	-0.00497	-0.82	-0.63
631	P715	N699	N700		P	120.0	278.2	0.100	-0.00146	-0.18	-0.19
632	P716	N700	N701		P	120.0	39.6	0.100	-0.00320	-0.11	-0.41
633	P717	N701	N702		P	120.0	271.8	0.100	0.00634	2.63	0.81
634	P718	N702	N703		P	120.0	79.6	0.100	0.00607	0.71	0.77
635	P719	N703	N698		P	120.0	28.9	0.100	0.00534	0.20	0.68
636	P720	N701	N704		P	120.0	29.4	0.100	-0.01018	-0.68	-1.30
637	P721	N706	N707		P	120.0	219.5	0.080	0.00201	0.75	0.40
638	P722	N707	N708		P	120.0	137.8	0.150	0.00192	0.02	0.11
639	P723	N655	N709		P	120.0	115.0	0.100	0.00153	0.08	0.19
640	P724	N709	N710		P	120.0	65.1	0.100	0.00116	0.03	0.15
641	P725	N710	N711		P	120.0	49.9	0.050	0.00026	0.04	0.13
642	P726	N711	N712		P	120.0	233.7	0.050	0.00017	0.08	0.09
643	P727	N712	N673		P	120.0	54.9	0.115	-0.00145	-0.02	-0.14
644	P728	N673	N713		P	120.0	117.0	0.150	0.00340	0.05	0.19
645	P729	N713	N714		P	120.0	126.3	0.150	0.00320	0.05	0.18
646	P730	N714	N715		P	120.0	470.7	0.080	0.00056	0.15	0.11
647	P731	N715	N716		P	120.0	229.0	0.100	-0.00106	-0.08	-0.14
648	P732	N716	N712		P	120.0	403.7	0.115	-0.00156	-0.15	-0.15
649	P733	N717	N718		P	120.0	22.8	0.100	-0.00006	0.00	-0.01
650	P734	N718	N719		P	120.0	23.6	0.100	-0.00051	0.00	-0.06
651	P735	N719	N720		P	120.0	145.1	0.100	-0.00076	-0.03	-0.10
652	P736	N720	N721		P	120.0	80.8	0.100	-0.00083	-0.02	-0.11
653	P737	N721	N722		P	120.0	53.7	0.100	-0.00089	-0.01	-0.11
654	P738	N722	N723		P	120.0	51.5	0.100	-0.00108	-0.02	-0.14
655	P739	N723	N724		P	120.0	62.6	0.100	-0.00140	-0.04	-0.18
656	P740	N724	N669		P	120.0	62.4	0.100	-0.00159	-0.05	-0.20
657	P741	N710	N725		P	120.0	332.2	0.065	0.00053	0.27	0.16
658	P742	N725	N717		P	120.0	107.6	0.150	0.00052	0.00	0.03
659	P743	N725	N716		P	120.0	257.9	0.150	-0.00011	0.00	-0.01
660	P744	N682	N726		P	120.0	25.6	0.100	-0.00032	0.00	-0.04
661	P745	N726	N685		P	120.0	48.9	0.060	0.00058	0.07	0.20
662	P746	N726	N688		P	120.0	27.4	0.100	-0.00096	-0.01	-0.12
663	P747	N714	N727		P	120.0	129.6	0.150	0.00201	0.02	0.11
664	P749	N636	N729		P	120.0	254.3	0.050	0.00130	3.85	0.66
665	P750	N730	N731		P	120.0	21.3	0.080	0.00703	0.74	1.40

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666	P751	N731	N732		P	120.0	312.1	0.080	0.00650	9.37	1.29
667	P752	N730	NV1_1	0.00000	P	120.0	50.9	0.150	0.00110	0.00	0.06
668	P753	N734	N735		P	120.0	31.9	0.150	-0.00304	-0.01	-0.17
669	P754	N704	N736		P	120.0	110.0	0.250	-0.02471	-0.15	-0.50
670	P755	N738	N603		P	120.0	59.8	0.200	-0.02621	-0.27	-0.83
671	P762	N747	N748		P	120.0	204.0	0.150	0.00027	0.00	0.02
672	P763	N748	N749		P	120.0	168.5	0.150	0.00018	0.00	0.01
673	P764	N688	NV30_1	0.00000	P	120.0	5.0	0.100	0.00000	0.00	0.00
674	P765	N750	N751		P	120.0	232.4	0.100	-0.00009	0.00	-0.01
675	P766	N751	N752		P	120.0	62.0	0.100	0.00013	0.00	0.02
676	P767	N751	N753		P	120.0	261.2	0.100	-0.00031	-0.01	-0.04
677	P768	N737	N754		P	120.0	62.2	0.250	-0.02516	-0.09	-0.51
678	P769	N754	N738		P	120.0	167.7	0.200	-0.02593	-0.75	-0.83
679	P771	N756	N757		P	120.0	150.5	0.125	0.00408	0.22	0.33
680	P772	N757	N758		P	120.0	38.8	0.125	0.00253	0.02	0.21
681	P773	N758	N759		P	120.0	54.8	0.125	0.00207	0.02	0.17
682	P774	N759	N760		P	120.0	170.4	0.125	0.00113	0.02	0.09
683	P775	N760	N761	0.00000	P	120.0	210.7	0.125	0.00059	0.01	0.05
684	P780	N765	NV32_1	0.00000	P	120.0	18.4	0.100	0.00000	0.00	0.00
685	P781	N766	N767		P	120.0	89.1	0.050	-0.00055	-0.27	-0.28
686	P782	N767	N768		P	120.0	36.3	0.050	-0.00092	-0.29	-0.47
687	P784	N756	N770		P	120.0	45.4	0.080	0.00391	0.53	0.78
688	P785	N770	N771		P	120.0	33.9	0.080	0.00271	0.20	0.54
689	P786	N771	N772		P	120.0	160.0	0.080	0.00258	0.87	0.51
690	P787	N772	N773		P	120.0	168.8	0.150	0.00044	0.00	0.02
691	P788	N773	N774		P	120.0	168.4	0.150	0.00016	0.00	0.01
692	P789	N774	N775		P	120.0	85.4	0.150	-0.00030	0.00	-0.02
693	P790	N775	N776		P	120.0	21.9	0.150	-0.00103	0.00	-0.06
694	P791	N733	N727		P	120.0	153.1	0.150	-0.00140	-0.01	-0.08
695	P792	N733	N777		P	120.0	75.1	0.050	0.00051	0.20	0.26
696	P793	N777	N778		P	120.0	48.6	0.050	-0.00004	0.00	-0.02
697	P794	N778	N779		P	120.0	374.5	0.050	-0.00013	-0.08	-0.06
698	P795	N779	N780		P	120.0	207.7	0.100	0.00065	0.03	0.08
699	P796	N780	N765		P	120.0	121.6	0.100	0.00046	0.01	0.06
700	P797	N708	N781		P	120.0	37.5	0.150	0.00137	0.00	0.08
701	P798	N735	N782		P	120.0	194.8	0.150	-0.00331	-0.08	-0.19
702	P799	N783	N733		P	120.0	29.4	0.150	-0.00640	-0.04	-0.36
703	P800	N783	N776		P	120.0	38.6	0.150	0.00176	0.00	0.10
704	P801	N781	N784		P	120.0	310.1	0.150	0.00073	0.01	0.04
705	P802	N784	NV37_1	0.00000	P	120.0	42.3	0.080	0.00000	0.00	0.00
706	P803	N786	N787		P	120.0	51.9	0.050	-0.00009	-0.01	-0.05
707	P804	N787	N788		P	120.0	348.6	0.050	-0.00092	-2.74	-0.47
708	P805	N788	N779		P	120.0	45.6	0.100	0.00077	0.01	0.10
709	P806	N789	N790		P	120.0	35.0	0.080	0.00000	0.00	0.00
710	P807	N790	N791		P	120.0	359.9	0.080	0.00000	0.00	0.00
711	P808	N791	N788		P	120.0	22.1	0.150	0.00180	0.00	0.10
712	P809	N791	N792		P	120.0	183.3	0.150	-0.00180	-0.02	-0.10
713	P810	N792	N793		P	120.0	224.6	0.150	-0.00189	-0.03	-0.11
714	P811	N793	N772		P	120.0	76.3	0.150	-0.00208	-0.01	-0.12
715	P812	N794	N795		P	120.0	345.9	0.100	-0.00489	-2.07	-0.62
716	P813	N795	N796		P	120.0	67.0	0.100	-0.00654	-0.69	-0.83
717	P814	N796	N797		P	120.0	67.0	0.100	-0.00732	-0.84	-0.93
718	P815	N785	N1025	0.00000	P	120.0	60.8	0.100	-0.00347	-0.19	-0.44
719	P816	N798	N794		P	120.0	254.2	0.100	-0.00471	-1.42	-0.60
720	P817	N794	NV39_1	0.00000	P	120.0	4.9	0.080	0.00000	0.00	0.00
721	P818	N799	N800		P	120.0	231.6	0.150	-0.00090	-0.01	-0.05
722	P819	N800	N801		P	120.0	143.3	0.150	-0.00417	-0.09	-0.24
723	P820	N801	N802		P	120.0	105.9	0.050	0.00270	6.16	1.37
724	P821	N802	N803		P	120.0	99.2	0.050	0.00197	3.21	1.00
725	P823	N801	N805		P	120.0	69.3	0.150	-0.01064	-0.24	-0.60
726	P824	N805	N806		P	120.0	40.8	0.150	-0.01110	-0.15	-0.63
727	P825	N806	N807		P	120.0	175.6	0.150	-0.01146	-0.70	-0.65
728	P827	N809	N739		P	120.0	340.4	0.150	-0.01366	-1.89	-0.77
729	P828	N809	N810		P	120.0	115.2	0.150	0.01356	0.63	0.77
730	P830	N606	N811		P	120.0	408.1	0.200	-0.00037	0.00	-0.01
731	P831	N811	N812		P	120.0	110.4	0.200	-0.00119	0.00	-0.04
732	P832	N812	N813		P	120.0	39.4	0.200	-0.00156	0.00	-0.05
733	P833	N813	N814		P	120.0	225.5	0.200	-0.00165	-0.01	-0.05
734	P834	N814	N815		P	120.0	73.6	0.200	-0.00165	0.00	-0.05
735	P835	N815	N816		P	120.0	149.5	0.200	-0.00165	0.00	-0.05
736	P836	N816	N817		P	120.0	195.5	0.150	-0.02176	-2.57	-1.23
737	P841	N821	N822		P	120.0	178.7	0.150	-0.02258	-2.52	-1.28
738	P842	N822	N823		P	120.0	107.7	0.150	-0.02258	-1.52	-1.28
739	P843	N823	N824		P	120.0	149.9	0.150	-0.02258	-2.11	-1.28
740	P844	N824	N825		P	120.0	32.7	0.150	-0.02258	-0.46	-1.28
741	P845	N825	N826		P	120.0	226.5	0.150	-0.02258	-3.19	-1.28
742	P846	N826	N827		P	120.0	169.6	0.150	-0.02258	-2.39	-1.28
743	P847	N827	N828		P	120.0	125.0	0.150	-0.02258	-1.76	-1.28
744	P848	N828	N829		P	120.0	106.3	0.150	-0.02258	-1.50	-1.28
745	P849	N829	N830		P	120.0	120.7	0.150	-0.02258	-1.70	-1.28
746	P850	N830	N831		P	120.0	121.2	0.150	-0.02258	-1.71	-1.28
747	P852	N832	N833		P	120.0	110.6	0.150	-0.02258	-1.56	-1.28
748	P853	N833	N834		P	120.0	143.8	0.150	-0.02258	-2.02	-1.28
749	P854	N834	N835		P	120.0	227.5	0.150	-0.02258	-3.20	-1.28

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750	P855	N835	N836		P	120.0	146.4	0.150	-0.02258	-2.06	-1.28
751	P856	N836	N837		P	120.0	280.5	0.150	-0.02258	-3.95	-1.28
752	P857	N799	N838		P	120.0	29.1	0.150	0.00000	0.00	0.00
753	P858	N838	N839		P	120.0	81.0	0.150	0.00000	0.00	0.00
754	P859	N839	N1024	0.00000	P	120.0	329.8	0.150	0.00000	0.00	0.00
755	P860	N816	N841		P	120.0	38.0	0.150	0.01993	0.42	1.13
756	P861	N841	N842		P	120.0	236.4	0.150	0.01966	2.57	1.11
757	P862	N842	N843		P	120.0	111.6	0.150	0.01865	1.10	1.06
758	P863	N843	N844		P	120.0	244.5	0.150	0.01735	2.11	0.98
759	P864	N844	N845		P	120.0	47.8	0.150	0.01735	0.41	0.98
760	P865	N845	N846		P	120.0	142.7	0.150	0.01735	1.23	0.98
761	P866	N846	N847		P	120.0	75.9	0.150	0.01735	0.66	0.98
762	P867	N847	N848		P	120.0	147.5	0.150	0.01735	1.28	0.98
763	P868	N848	N849		P	120.0	71.9	0.150	0.01735	0.62	0.98
764	P869	N849	N850		P	120.0	119.0	0.150	0.01735	1.03	0.98
765	P870	N850	N851		P	120.0	127.2	0.150	0.01735	1.10	0.98
766	P871	N851	N852		P	120.0	113.6	0.150	0.01735	0.98	0.98
767	P872	N852	N853		P	120.0	149.2	0.150	0.01735	1.29	0.98
768	P873	N853	N854		P	120.0	117.7	0.150	0.01735	1.02	0.98
769	P874	N854	N855		P	120.0	125.0	0.150	0.01735	1.08	0.98
770	P875	N855	N856		P	120.0	126.6	0.150	0.01735	1.09	0.98
771	P876	N856	N857		P	120.0	99.7	0.150	0.01735	0.86	0.98
772	P879	N859	N860		P	120.0	151.9	0.050	0.00061	0.56	0.31
773	P880	N860	N861		P	120.0	70.8	0.050	0.00061	0.26	0.31
774	P881	N861	N862		P	120.0	51.3	0.050	0.00061	0.19	0.31
775	P882	N862	N863		P	120.0	94.7	0.050	0.00045	0.20	0.23
776	P883	N863	NV45_1	0.00000	P	120.0	76.4	0.050	0.00000	0.00	0.00
777	P884	N864	N865		P	120.0	63.4	0.150	-0.00893	-0.16	-0.51
778	P885	N865	N866		P	120.0	111.5	0.150	-0.00908	-0.29	-0.51
779	P886	N866	N867		P	120.0	167.9	0.150	-0.00939	-0.47	-0.53
780	P887	N867	N1154	0.00000	P	120.0	55.8	0.150	-0.00979	-0.17	-0.55
781	P888	N868	N869		P	120.0	158.7	0.200	-0.01701	-0.33	-0.54
782	P889	N869	N870		P	120.0	83.9	0.200	-0.01781	-0.19	-0.57
783	P890	N870	N871		P	120.0	73.5	0.200	-0.01842	-0.17	-0.59
784	P891	N871	N872		P	120.0	76.1	0.150	0.00141	0.01	0.08
785	P892	N864	N873		P	120.0	75.2	0.150	0.00863	0.18	0.49
786	P893	N873	N874		P	120.0	105.8	0.150	0.00812	0.22	0.46
787	P894	N874	NV44_1	0.00000	P	120.0	11.7	0.150	0.00000	0.00	0.00
788	P895	N875	NV43_1	0.00000	P	120.0	237.7	0.150	0.00000	0.00	0.00
789	P896	N876	N877		P	120.0	78.4	0.150	0.00578	0.09	0.33
790	P897	N877	N878	0.00000	P	120.0	133.5	0.150	0.00525	0.13	0.30
791	P898	N879	N880		P	120.0	146.7	0.150	0.00298	0.05	0.17
792	P899	N880	N881		P	120.0	125.0	0.150	0.00119	0.01	0.07
793	P900	N881	N882		P	120.0	130.2	0.150	0.00091	0.00	0.05
794	P901	N882	N883		P	120.0	200.7	0.150	0.00091	0.01	0.05
795	P902	N883	N884		P	120.0	86.6	0.150	0.00020	0.00	0.01
796	P903	N884	NV41_1	0.00000	P	120.0	460.0	0.150	0.00000	0.00	0.00
797	P904	N885	N886		P	120.0	572.4	0.150	0.00072	0.01	0.04
798	P907	N888	N889		P	120.0	267.7	0.050	0.00000	0.00	0.00
799	P910	N891	N892		P	120.0	425.2	0.150	0.00327	0.17	0.18
800	P913	N894	N875		P	120.0	30.4	0.150	0.00121	0.00	0.07
801	P915	N895	N896		P	120.0	396.6	0.050	0.00000	0.00	0.00
802	P916	N896	N897		P	120.0	143.9	0.050	0.00000	0.00	0.00
803	P917	N897	N898		P	120.0	116.4	0.050	0.00000	0.00	0.00
804	P937	N917	N918		P	120.0	130.7	0.150	-0.01685	-1.07	-0.95
805	P938	N918	N919		P	120.0	133.2	0.150	-0.01685	-1.09	-0.95
806	P939	N919	N920		P	120.0	363.8	0.150	-0.01685	-2.98	-0.95
807	P940	N920	N921		P	120.0	76.2	0.150	-0.01685	-0.62	-0.95
808	P948	N929	N930		P	120.0	117.5	0.150	0.00000	0.00	0.00
809	P949	N930	N931		P	120.0	137.9	0.150	0.00000	0.00	0.00
810	P950	N931	N932		P	120.0	369.7	0.150	0.00000	0.00	0.00
811	P951	N932	NV57_1	0.00000	P	120.0	265.4	0.150	0.00000	0.00	0.00
812	P952	N933	N934		P	120.0	932.5	0.150	-0.00006	0.00	0.00
813	P953	N934	N935		P	120.0	89.4	0.150	0.00006	0.00	0.00
814	P954	N935	NV48_1	0.00000	P	120.0	250.4	0.150	0.00000	0.00	0.00
815	P955	N936	N937		P	120.0	277.3	0.150	-0.00083	-0.01	-0.05
816	P956	N937	N938		P	120.0	109.9	0.080	-0.00121	-0.15	-0.24
817	P957	N938	N1155	0.00000	P	120.0	60.8	0.080	-0.00136	-0.10	-0.27
818	P958	N939	N940		P	120.0	499.2	0.080	0.00081	0.32	0.16
819	P959	N879	N941	0.00000	P	120.0	23.7	0.150	-0.00391	-0.01	-0.22
820	P960	N941	N878		P	120.0	129.4	0.080	-0.00472	-2.15	-0.94
821	P961	N941	N942	0.00000	P	120.0	21.1	0.080	0.00061	0.01	0.12
822	P962	N942	NV54_1	0.00000	P	120.0	141.1	0.080	0.00000	0.00	0.00
823	P963	N943	N944		P	120.0	86.2	0.080	-0.00333	-0.75	-0.66
824	P964	N944	N945		P	120.0	954.6	0.080	0.00376	10.39	0.75
825	P974	N954	N955		P	120.0	131.6	0.050	0.00000	0.00	0.00
826	P975	N955	N956		P	120.0	123.3	0.050	0.00000	0.00	0.00
827	P976	N957	N958		P	120.0	213.4	0.050	0.00000	0.00	0.00
828	P979	N945	N961		P	120.0	29.0	0.050	0.00039	0.05	0.20
829	P980	N961	N962		P	120.0	913.1	0.100	0.00026	0.02	0.03
830	P981	N962	N963		P	120.0	93.5	0.080	0.00012	0.00	0.02
831	P982	N963	NV55_1	0.00000	P	120.0	118.0	0.080	0.00000	0.00	0.00
832	P983	N964	N965		P	120.0	159.2	0.080	-0.00008	0.00	-0.02
833	P984	N965	N966		P	120.0	148.1	0.080	-0.00121	-0.20	-0.24

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834	P985	N966	N880		P	120.0	24.0	0.080	-0.00129	-0.04	-0.26
835	P986	N967	N968		P	120.0	67.1	0.080	-0.00038	-0.01	-0.08
836	P987	N968	N969		P	120.0	113.4	0.080	0.00040	0.02	0.08
837	P988	N969	NV56_1	0.00000	P	120.0	37.3	0.080	0.00000	0.00	0.00
838	P989	N970	N971		P	120.0	195.8	0.080	0.00000	0.00	0.00
839	P990	N971	N972		P	120.0	162.7	0.080	0.00000	0.00	0.00
840	P991	N972	N973		P	120.0	282.1	0.080	0.00000	0.00	0.00
841	P992	N973	N974		P	120.0	111.6	0.080	0.00000	0.00	0.00
842	P993	N974	NV40_1	0.00000	P	120.0	421.1	0.080	0.00000	0.00	0.00
843	P995	N725	NV36_1	0.00000	P	120.0	14.9	0.065	0.00000	0.00	0.00
844	P996	N717	NV42_1	0.00000	P	120.0	19.7	0.080	0.00000	0.00	0.00
845	P997	N980	N981		P	120.0	15.7	0.080	-0.00222	-0.06	-0.44
846	P998	N982	N983		P	120.0	79.2	0.080	-0.00472	-1.31	-0.94
847	P1002	N785	N987		P	120.0	543.4	0.100	0.00274	1.11	0.35
848	P1003	N672	N988		P	120.0	35.6	0.150	-0.00051	0.00	-0.03
849	P1004	N988	N673		P	120.0	26.8	0.150	-0.00083	0.00	-0.05
850	P1005	N988	N989		P	120.0	406.2	0.050	0.00025	0.29	0.13
851	P1006	N692	N990		P	120.0	224.1	0.200	-0.00523	-0.05	-0.17
852	P1007	N729	NV28_1	0.00000	P	120.0	16.3	0.150	0.00000	0.00	0.00
853	P1008	N991	N990		P	120.0	25.7	0.200	0.00838	0.01	0.27
854	P1009	N705	N992		P	120.0	44.9	0.250	0.02045	0.04	0.42
855	P1010	N992	N993		P	120.0	64.4	0.250	0.01943	0.06	0.40
856	P1011	N993	N994		P	120.0	16.8	0.250	0.01917	0.01	0.39
857	P1012	N994	N995	0.00000	P	120.0	67.0	0.250	0.01686	0.05	0.34
858	P1013	N995	N991		P	120.0	14.6	0.150	0.00845	0.03	0.48
859	P1014	N995	N730		P	120.0	46.2	0.150	0.00819	0.10	0.46
860	P1015	N139	N996		P	120.0	102.9	0.400	0.00000	0.00	0.00
861	P1016	N161	N1006		P	120.0	44.8	0.200	-0.00322	0.00	-0.10
862	P1017	N250	N1007		P	120.0	40.2	0.250	-0.00016	0.00	0.00
863	P1021	N765	NV31_1	0.00000	P	120.0	12.7	0.100	0.00000	0.00	0.00
864	P1024	N716	NV35_1	0.00000	P	120.0	16.8	0.115	0.00006	0.00	0.01
865	P1025	N1000	N1001		P	120.0	195.5	0.115	-0.00331	-0.29	-0.32
866	P1027	N1000	N979		P	120.0	255.5	0.100	0.00313	0.67	0.40
867	P1028	N999	N1002		P	120.0	111.0	0.100	-0.00019	0.00	-0.02
868	P1029	N201	N1003		P	120.0	22.0	0.200	-0.00060	0.00	-0.02
869	P1030	N1003	N251		P	120.0	54.7	0.200	0.02095	0.17	0.67
870	P1031	N1003	N284		P	120.0	37.8	0.200	0.00609	0.01	0.19
871	P1032	N1004	N31		P	120.0	260.9	0.100	-0.00837	-4.22	-1.07
872	P1033	N31	N96		P	120.0	26.7	0.250	-0.01691	-0.02	-0.34
873	P1034	N119	N120		P	120.0	76.0	0.250	-0.01207	-0.03	-0.25
874	P1035	N156	N157		P	120.0	88.3	0.400	0.00000	0.00	0.00
875	P1036	N312	N313		P	120.0	157.4	0.200	0.00013	0.00	0.00
876	P1037	N392	N396		P	120.0	87.9	0.250	-0.04246	-0.33	-0.86
877	P1038	N394	N395		P	120.0	79.7	0.250	-0.04128	-0.28	-0.84
878	P1039	N417	N418		P	120.0	231.7	0.080	-0.00080	-0.14	-0.16
879	P1040	N403	N404		P	120.0	80.7	0.080	0.00155	0.17	0.31
880	P1041	N405	N406		P	120.0	105.8	0.080	0.00136	0.17	0.27
881	P1043	N566	N509		P	120.0	294.3	0.150	-0.01226	-1.34	-0.69
882	P1044	N505	N508		P	120.0	41.4	0.150	-0.00566	-0.04	-0.32
883	P1045	N507	N583		P	120.0	322.5	0.100	0.00565	2.52	0.72
884	P1046	N618	N566		P	120.0	461.8	0.080	-0.00534	-9.64	-1.06
885	P1047	N736	N737		P	120.0	37.3	0.250	-0.02507	-0.05	-0.51
886	P1048	N745	N744		P	120.0	61.7	0.200	-0.00749	-0.03	-0.24
887	P1049	N621	N1161	0.00000	P	120.0	194.4	0.150	0.00180	0.03	0.10
888	P1050	N704	N705		P	120.0	662.0	0.250	0.01406	0.32	0.29
889	P1052	N994	N706		P	120.0	538.7	0.080	0.00231	2.39	0.46
890	P1053	N690	N691		P	120.0	528.3	0.200	-0.00109	-0.01	-0.03
891	P1054	N732	N733		P	120.0	395.8	0.080	0.00624	11.03	1.24
892	P1055	N782	N783	0.00000	P	120.0	203.7	0.150	-0.00372	-0.10	-0.21
893	P1057	N754	N753		P	120.0	863.5	0.080	0.00049	0.22	0.10
894	P1058	N960	N967		P	120.0	936.6	0.080	0.00000	0.00	0.00
895	P1059	N1002	N886		P	120.0	250.4	0.100	-0.00042	-0.02	-0.05
896	P1060	N981	N982		P	120.0	112.4	0.080	-0.00472	-1.86	-0.94
897	P1061	N975	N976		P	120.0	555.8	0.080	0.00141	0.99	0.28
898	P1062	N956	N957		P	120.0	331.2	0.050	0.00000	0.00	0.00
899	P2000	N7	N10		P	120.0	49.4	0.080	0.00069	0.02	0.14
900	P2001	N739	N605	0.00000	P	110.0	27.1	0.150	-0.01375	-0.18	-0.78
901	P1064	N921	N1011	0.00000	P	110.0	159.9	0.150	-0.01685	-1.54	-0.95
902	P1065	N1011	N887	0.00000	P	110.0	812.3	0.150	-0.01685	-7.81	-0.95
903	P1066	N895	NV60_1	0.00000	P	110.0	186.5	0.050	0.00000	0.00	0.00
904	P1067	N891	N945	0.00000	P	110.0	38.3	0.050	-0.00327	-3.73	-1.66
905	P1068	N893	N1012	0.00000	P	110.0	283.1	0.150	0.00836	0.74	0.47
906	P1069	N1013	N1014	0.01166	P	110.0	254.2	0.150	0.00000	-0.43	0.00
907	P1072	N1014	N1015	0.00000	P	110.0	578.9	0.100	-0.01166	-20.30	-1.48
908	P1073	N1015	N1016	0.00000	P	110.0	91.2	0.100	-0.01514	-5.19	-1.93
909	P1074	N1016	N1017	0.00000	P	110.0	268.4	0.100	-0.01514	-15.26	-1.93
910	P1078	N1017	N1018	0.00000	P	110.0	280.8	0.100	-0.01514	-15.97	-1.93
911	P1079	N1018	N1019	0.00000	P	110.0	97.4	0.100	-0.01514	-5.54	-1.93
912	P1080	N1019	N1020	0.00000	P	110.0	223.1	0.100	-0.01514	-12.69	-1.93
913	P1081	N1020	N1021	0.00000	P	110.0	489.0	0.100	-0.01514	-27.81	-1.93
914	P1082	N1021	N1022	0.00000	P	110.0	216.8	0.100	-0.01514	-12.33	-1.93
915	P1083	N1012	N1023	0.00000	P	110.0	614.0	0.100	0.00836	11.62	1.06
916	P1084	N1023	NV50_1	0.00000	P	110.0	165.3	0.100	0.00000	0.00	0.00
917	P878	N887	N857	0.00000	P	110.0	290.6	0.150	-0.01735	-2.95	-0.98

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918	P877	N894	N859	0.00000	P	110.0	56.8	0.050	0.00061	0.25	0.31
919	P906	N888	N858	0.00000	P	110.0	146.4	0.050	-0.00040	-0.30	-0.21
920	P912	N892	N858	0.00000	P	110.0	420.7	0.150	0.00236	0.11	0.13
921	P914	N858	N894	0.00000	P	110.0	36.6	0.150	0.00195	0.01	0.11
922	P859_2	N1024	N840	0.00000	P	120.0	87.7	0.150	0.00000	0.00	0.00
923	P905	N795	NV38_1	0.00000	P	110.0	6.9	0.040	0.00000	0.00	0.00
924	P815_2	N1025	N798	0.00000	P	120.0	445.7	0.100	-0.00355	-1.47	-0.45
925	P752_2	NV1_2	N734	0.00000	P	120.0	267.2	0.150	-0.00249	-0.06	-0.14
926	V1	NV1_1	NV1_2	0.00000	V	100000000.0	0.0	0.150	0.00000	21.44	
927	P770	N756	N697	0.00000	P	110.0	243.9	0.080	-0.00882	-15.12	-1.75
928	P776	N761	N1027	0.00000	P	110.0	114.8	0.100	0.00031	0.00	0.04
929	P777	N1027	N763	0.00000	P	110.0	131.3	0.080	0.00031	0.02	0.06
930	P778	N763	N764	0.00000	P	110.0	78.1	0.080	0.00031	0.01	0.06
931	P779	N764	N1005	0.00000	P	110.0	557.2	0.080	0.00031	0.07	0.06
932	P748	N727	N765	0.00000	P	110.0	493.1	0.080	0.00054	0.18	0.11
933	P822	N803	N804	0.00000	P	110.0	165.9	0.080	0.00055	0.06	0.11
934	P1086	N804	N728	0.00000	P	110.0	85.5	0.080	0.00018	0.00	0.04
935	P589	N584	N485	0.00000	P	110.0	424.8	0.150	-0.01417	-2.97	-0.80
936	P498	N501	N486	0.00000	P	110.0	26.0	0.080	0.00309	0.23	0.61
937	P609_2	NV2_2	N603	0.00000	P	120.0	7.4	0.100	-0.00085	0.00	-0.11
938	V2	NV2_1	NV2_2	0.00000	V	100000000.0	0.0	0.100	0.00000	-12.07	
939	P599_2	NV3_2	N594	0.00000	P	120.0	27.9	0.150	-0.00390	-0.02	-0.22
940	V3	NV3_1	NV3_2	0.00000	V	0.0	0.0	0.150	-0.00390	0.00	
941	P1087	N625	N624	0.00000	P	110.0	184.5	0.080	-0.00099	-0.20	-0.20
942	P1088	N1028	N746	0.00000	P	110.0	582.8	0.150	0.00694	1.09	0.39
943	P1051	N745	N1028	0.00000	P	110.0	164.7	0.150	0.00694	0.31	0.39
944	P1090	N1029	N1030	0.00000	P	110.0	281.7	0.100	-0.00059	-0.04	-0.07
945	P1089	N1029	N1031	0.00000	P	110.0	139.1	0.100	0.00059	0.02	0.07
946	P1091	N1031	N1032	0.00000	P	110.0	213.0	0.100	0.00013	0.00	0.02
947	P1092	N1032	N1033	0.00000	P	110.0	143.6	0.100	0.00013	0.00	0.02
948	P1093	N1033	N1034	0.00000	P	110.0	113.6	0.100	0.00013	0.00	0.02
949	P1094	N1034	N1035	0.00000	P	110.0	36.1	0.100	0.00013	0.00	0.02
950	P1095	N1035	N1036	0.00000	P	110.0	118.4	0.100	0.00013	0.00	0.02
951	P1096	N1036	N1037	0.00000	P	110.0	123.9	0.100	0.00013	0.00	0.02
952	P1097	N1037	N1038	0.00000	P	110.0	107.2	0.100	0.00013	0.00	0.02
953	P1098	N1038	N1039	0.00000	P	110.0	121.5	0.100	0.00013	0.00	0.02
954	P1099	N1039	N1040	0.00000	P	110.0	171.8	0.100	0.00013	0.00	0.02
955	P1100	N1040	N1041	0.00000	P	110.0	212.1	0.100	0.00013	0.00	0.02
956	P840	N821	N819	0.00000	P	110.0	247.5	0.150	0.02258	4.09	1.28
957	P838	N819	N817	0.00000	P	110.0	138.3	0.150	0.02222	2.22	1.26
958	P1101	N1041	N1042	0.00000	P	110.0	26.7	0.100	0.00013	0.00	0.02
959	P1102	N1042	N1043	0.00000	P	110.0	174.7	0.100	0.00013	0.00	0.02
960	P1103	N1043	N1044	0.00000	P	110.0	100.8	0.100	0.00013	0.00	0.02
961	P1104	N1044	N1045	0.00000	P	110.0	188.4	0.100	0.00013	0.00	0.02
962	P1105	N1045	N1046	0.00000	P	110.0	261.7	0.100	0.00013	0.00	0.02
963	P1106	N1046	N1047	0.00000	P	110.0	148.8	0.100	0.00013	0.00	0.02
964	P1107	N1047	NV62_1	0.00000	P	110.0	145.4	0.100	0.00013	0.00	0.02
965	P1409	N1048	N1049	0.00000	P	110.0	164.8	0.150	0.00000	0.00	0.00
966	P1109	N1049	N1050	0.00000	P	110.0	78.2	0.150	0.00000	0.00	0.00
967	P1110	N1050	N1051	0.00000	P	110.0	226.3	0.150	-0.00009	0.00	-0.01
968	P757	N740	N741	0.00000	P	110.0	333.7	0.150	0.00785	0.78	0.44
969	P760	N744	N743	0.00000	P	110.0	292.1	0.200	-0.00749	-0.15	-0.24
970	P761	N747	N742	0.00000	P	110.0	294.8	0.150	-0.00037	0.00	-0.02
971	P758	N741	N742	0.00000	P	110.0	77.8	0.150	0.00785	0.18	0.44
972	P759	N742	N743	0.00000	P	110.0	22.9	0.150	0.00749	0.05	0.42
973	P829	N807	N810	0.00000	P	110.0	98.0	0.150	-0.01320	-0.60	-0.75
974	P1111	N1051	N1052	0.00000	P	110.0	135.0	0.150	-0.00009	0.00	-0.01
975	P1112	N1052	N1053	0.00000	P	110.0	421.2	0.150	-0.00064	-0.01	-0.04
976	P783	N768	N1190	0.00000	P	110.0	21.1	0.080	-0.00092	-0.02	-0.18
977	P1026	N1000	N769	0.00000	P	110.0	302.4	0.100	0.00009	0.00	0.01
978	P1023	N769	NV33_1	0.00000	P	110.0	145.0	0.100	0.00000	0.00	0.00
979	P1113	N1022	N1054	0.00000	P	110.0	85.9	0.150	-0.01514	-0.68	-0.86
980	P110	N106	N108	0.00000	P	110.0	244.8	0.100	-0.00054	-0.03	-0.07
981	P1117	N81	N82	0.00000	P	110.0	81.0	0.300	0.02963	0.08	0.42
982	P1121	N53	N1060	0.00000	P	110.0	46.8	0.080	-0.00956	-3.36	-1.90
983	P1122	N1060	N80	0.00000	P	110.0	371.3	0.300	0.03148	0.39	0.45
984	P1123	N75	N1061	0.00000	P	110.0	31.3	0.200	0.00000	0.00	0.00
985	P1124	N1061	N1062	0.00000	P	110.0	376.5	0.200	0.00000	0.00	0.00
986	P1126	N1063	N1064	0.00000	P	110.0	115.7	0.200	-0.00096	0.00	-0.03
987	P1127	N1064	NV8_1	0.00000	P	110.0	28.6	0.200	-0.00096	0.00	-0.03
988	P1128	N1062	N1066	0.00000	P	110.0	55.7	0.150	0.00000	0.00	0.00
989	P69_2	NV7_2	N75	0.00000	P	120.0	24.8	0.200	0.00000	0.00	0.00
990	V7	NV7_1	NV7_2	0.00000	V	100000000.0	0.0	0.200	0.00000	-91.00	
991	P1127_2	NV8_2	N1065	0.00000	P	110.0	28.6	0.200	-0.00096	0.00	-0.03
992	V8	NV8_1	NV8_2	0.00000	V	0.0	0.0	0.150	-0.00096	0.00	
993	P37	N90	N89	0.00000	P	110.0	26.0	0.050	0.00323	2.47	1.64
994	P590	N595	N585	0.00000	P	120.0	81.8	0.150	-0.00892	-0.21	-0.50
995	P591	N585	N584	0.00000	P	120.0	50.0	0.150	-0.01327	-0.26	-0.75
996	P588	N621	N729	0.00000	P	120.0	36.9	0.150	-0.00079	0.00	-0.04
997	P216_2	NV9_2	N218	0.00000	P	120.0	59.6	0.250	0.00063	0.00	0.01
998	V9	NV9_1	NV9_2	0.00000	V	0.0	0.0	0.250	0.00063	0.00	
999	P592	N197	NV65_1	0.00000	P	120.0	19.6	0.100	0.00000	0.00	0.00
1000	P435	N442	N461	0.00000	P	110.0	27.7	0.250	0.00282	0.00	0.06
1001	P201	N203	N88	0.00000	P	110.0	336.7	0.300	0.02941	0.31	0.42

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1002	P412	N418	N412	0.00000	P	110.0	207.2	0.080	-0.00214	-0.94	-0.43
1003	P409	N412	N415	0.00000	P	110.0	386.7	0.080	0.00143	0.82	0.28
1004	P391	N396	N382	0.00000	P	110.0	239.2	0.050	0.00128	4.12	0.65
1005	P434	N440	N435	0.00000	P	110.0	59.6	0.250	-0.00661	-0.01	-0.13
1006	P445	N451	N413	0.00000	P	110.0	140.0	0.250	-0.01176	-0.06	-0.24
1007	P122	N413	N119	0.00000	P	110.0	93.7	0.250	-0.01176	-0.04	-0.24
1008	P646_2	Nv00_2	N618	0.00000	P	120.0	213.3	0.080	-0.00176	-0.57	-0.35
1009	v00	Nv00_1	Nv00_2	0.00000	V	2.1	0.0	0.080	-0.00131	-0.01	
1010	P5_2	N1	N7	0.00000	P	120.0	166.7	0.050	0.00103	1.64	0.53
1011	P1	N1	N2	0.00000	P	110.0	90.5	0.050	0.00000	0.00	0.00
1012	P90	N91	N44	0.00000	P	110.0	280.1	0.100	-0.00147	-0.21	-0.19
1013	P91	N89	N92	0.00000	P	110.0	188.4	0.080	0.00351	2.12	0.70
1014	P82	N92	N43	0.00000	P	110.0	95.9	0.080	0.00351	1.08	0.70
1015	P32	N35	N37	0.00000	P	110.0	424.6	0.080	0.00605	13.11	1.20
1016	P201_2	N88	N1003	0.00000	P	110.0	10.4	0.300	0.02764	0.01	0.39
1017	P6	N88	NV16_1	0.00000	P	110.0	115.5	0.100	0.00000	0.00	0.00
1018	P7	N5	N4	0.00000	P	110.0	730.7	0.100	0.00000	0.00	0.00
1019	P8	N88	N8	0.00000	P	110.0	779.5	0.100	0.00156	0.66	0.20
1020	P9	N8	N9	0.00000	P	110.0	826.1	0.100	0.00000	0.00	0.00
1021	P10	N8	N22	0.00000	P	110.0	142.9	0.100	0.00152	0.12	0.19
1022	P21	N22	N23	0.00000	P	110.0	126.3	0.100	0.00152	0.10	0.19
1023	P22	N23	N24	0.00000	P	110.0	46.7	0.100	0.00111	0.02	0.14
1024	P29	N24	N25	0.00000	P	110.0	180.1	0.100	0.00089	0.05	0.11
1025	P81	N24	N87	0.00000	P	110.0	141.1	0.100	0.00013	0.00	0.02
1026	P1186	N410	N1119	0.00000	P	110.0	52.1	0.100	-0.00063	-0.01	-0.08
1027	P1187	N1119	N1120	0.00000	P	110.0	77.9	0.100	-0.00082	-0.02	-0.10
1028	P1188	N1120	N1121	0.00000	P	110.0	39.3	0.100	-0.00170	-0.04	-0.22
1029	P1189	N1121	N1122	0.00000	P	110.0	33.5	0.100	-0.00274	-0.08	-0.35
1030	P1191	N411	N1123	0.00000	P	110.0	140.3	0.100	0.00013	0.00	0.02
1031	P1192	N410	N1124	0.00000	P	110.0	17.3	0.100	0.00135	0.01	0.17
1032	P1193	N1124	N1125	0.00000	P	110.0	33.2	0.100	0.00077	0.01	0.10
1033	P1194	N1125	N411	0.00000	P	110.0	56.0	0.100	0.00032	0.00	0.04
1034	P1195	N1124	N1126	0.00000	P	110.0	127.3	0.100	0.00045	0.01	0.06
1035	P1196	N1125	N1127	0.00000	P	110.0	115.3	0.100	0.00006	0.00	0.01
1036	P184	N185	N182	0.00000	P	110.0	59.2	0.250	0.00600	0.01	0.12
1037	P181	N182	N181	0.00000	P	110.0	435.1	0.250	0.00594	0.05	0.12
1038	P1198	N1128	N1129	0.00000	P	110.0	245.2	0.050	0.00144	5.25	0.73
1039	P1199	N1129	N1130	0.00000	P	110.0	205.5	0.050	0.00125	3.37	0.64
1040	P1200	N1130	N1131	0.00000	P	110.0	524.7	0.050	0.00125	8.61	0.64
1041	PB1132	NB1070	NB1071	0.00000	P	130.0	74.5	0.100	0.00651	0.65	0.83
1042	PB1133	NB1071	NB1072	0.00000	P	130.0	17.1	0.100	0.00651	0.15	0.83
1043	PB1134	NB1072	NB1073	0.00000	P	130.0	22.8	0.100	0.00651	0.20	0.83
1044	PB1135	NB1073	NB1074	0.00000	P	130.0	20.4	0.100	0.00651	0.18	0.83
1045	PB1136	NB1074	NB1118	0.00000	P	130.0	218.6	0.100	0.00651	1.91	0.83
1046	PB1138	NB1076	NB1122	0.00000	P	130.0	42.0	0.100	0.00594	0.31	0.76
1047	PB1139	NB1077	NB1078	0.00000	P	130.0	23.5	0.075	0.00474	0.46	1.07
1048	PB1140	NB1078	NB1075	0.00000	P	130.0	130.8	0.075	0.00138	0.26	0.31
1049	PB1141	NB1078	NB1080	0.00000	P	130.0	120.8	0.075	0.00336	1.26	0.76
1050	PB1142	NB1080	NB1081	0.00000	P	130.0	196.8	0.075	0.00330	1.99	0.75
1051	PB1143	NB1081	NB1082	0.00000	P	130.0	216.8	0.075	0.00305	1.89	0.69
1052	PB1144	NB1082	NB1083	0.00000	P	130.0	141.2	0.075	0.00125	0.24	0.28
1053	PB1145	NB1083	NB1084	0.00000	P	130.0	70.2	0.075	0.00048	0.02	0.11
1054	PB1146	NB1084	NB1085	0.00000	P	130.0	128.6	0.075	0.00012	0.00	0.03
1055	PB1149	NB1087	NB1088	0.00000	P	130.0	68.5	0.050	0.00082	0.38	0.42
1056	PB1150	NB1088	NB1079	0.00000	P	130.0	146.4	0.050	0.00070	0.60	0.36
1057	PB1151	NB1082	NB1089	0.00000	P	130.0	27.7	0.050	0.00086	0.17	0.44
1058	PB1152	NB1089	NB1090	0.00000	P	110.0	39.1	0.050	0.00048	0.11	0.25
1059	PB1153	NB1090	NB1099	0.00000	P	130.0	3.3	0.050	0.00046	0.01	0.23
1060	PB1154	NB1091	NB1092	0.00000	P	130.0	60.5	0.050	0.00010	0.01	0.05
1061	PB1155	NB1092	NB1093	0.00000	P	130.0	48.2	0.050	0.00008	0.00	0.04
1062	PB1156	NB1093	NB1094	0.00000	P	130.0	91.8	0.050	-0.00004	0.00	-0.02
1063	PB1160	NB1089	NB1098	0.00000	P	110.0	108.7	0.050	0.00026	0.10	0.13
1064	PB1157	NB1092	NB1095	0.00000	P	130.0	93.2	0.050	0.00002	0.00	0.01
1065	PB1158	NB1091	NB1096	0.00000	P	130.0	106.8	0.050	-0.00002	0.00	-0.01
1066	PB1153_2	NB1099	NB1100	0.00000	P	130.0	47.1	0.050	0.00033	0.05	0.17
1067	PB1159	NB1099	NB1097	0.00000	P	130.0	106.3	0.050	0.00001	0.00	0.00
1068	PB1161	NB1094	NB1095	0.00000	P	130.0	46.6	0.050	-0.00004	0.00	-0.02
1069	PB1164	NB1097	NB1098	0.00000	P	130.0	49.5	0.050	-0.00020	-0.02	-0.10
1070	PB1165	NB1090	NB1084	0.00000	P	130.0	173.3	0.050	-0.00010	-0.02	-0.05
1071	PB1153_2	NB1100	NB1091	0.00000	P	130.0	5.2	0.050	0.00020	0.00	0.10
1072	PB1167	NB1100	NB1101	0.00000	P	130.0	96.9	0.050	0.00000	0.00	0.00
1073	PB1168	NB1082	NB1102	0.00000	P	110.0	56.9	0.050	0.00081	0.42	0.41
1074	PB1169	NB1102	NB1103	0.00000	P	110.0	51.4	0.050	-0.00002	0.00	-0.01
1075	PB1170	NB1102	NB1104	0.00000	P	110.0	117.9	0.050	-0.00019	-0.06	-0.10
1076	PB1171	NB1103	NB1105	0.00000	P	110.0	114.6	0.050	-0.00015	-0.04	-0.08
1077	PB1172	NB1105	NB1104	0.00000	P	130.0	52.6	0.050	-0.00021	-0.02	-0.11
1078	PB1173	NB1104	NB1083	0.00000	P	130.0	60.2	0.050	-0.00046	-0.12	-0.24
1079	PB1174	NB1102	NB1106	0.00000	P	110.0	58.9	0.050	0.00096	0.59	0.49
1080	PB1175	NB1079	NB1107	0.00000	P	130.0	21.5	0.080	0.00055	0.01	0.11
1081	PB1176	NB1107	NB1108	0.00000	P	130.0	21.6	0.080	0.00043	0.00	0.09
1082	PB1137_2	NB1121	NB1076	0.00000	P	130.0	220.6	0.100	0.00600	1.66	0.76
1083	PB1186	NB1118	NB1119	0.00000	P	110.0	31.3	0.100	0.00618	0.34	0.79
1084	PB1187	NB1119	NB1120	0.00000	P	110.0	42.2	0.100	0.00618	0.46	0.79
1085	PB1188	NB1120	NB1121	0.00000	P	110.0	35.0	0.100	0.00606	0.37	0.77

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1086	PB1138_2	NB1122	NB1077	0.00000	P	130.0	238.2	0.100	0.00480	1.19	0.61
1087	PB1189	NB1122	NB1087	0.00000	P	110.0	93.5	0.050	0.00095	0.92	0.48
1088	PB1162	NB1095	NB1096	0.00000	P	110.0	61.8	0.050	-0.00009	-0.01	-0.05
1089	PB1140_2	NB1075	NB1079	0.00000	P	130.0	50.9	0.075	-0.00008	0.00	-0.02
1090	PB1109	NB1075	NB1109	0.00000	P	110.0	36.4	0.050	0.00134	0.68	0.68
1091	PB1178	NB1109	NB1110	0.00000	P	110.0	38.7	0.050	0.00128	0.66	0.65
1092	PB1179	NB1110	NB1111	0.00000	P	110.0	70.6	0.050	0.00115	1.00	0.59
1093	PB1180	NB1111	NB1112	0.00000	P	110.0	50.3	0.050	0.00103	0.57	0.52
1094	PB1181	NB1112	NB1113	0.00000	P	110.0	37.1	0.050	0.00096	0.38	0.49
1095	PB1182	NB1113	NB1114	0.00000	P	110.0	154.6	0.050	0.00090	1.39	0.46
1096	PB1183	NB1114	NB1115	0.00000	P	110.0	36.3	0.050	0.00071	0.21	0.36
1097	PB1184	NB1115	NB1116	0.00000	P	110.0	30.9	0.050	0.00065	0.15	0.33
1098	PB1163	NB1096	NB1117	0.00000	P	110.0	42.2	0.050	-0.00030	-0.05	-0.15
1099	PB1163_2	NB1117	NB1097	0.00000	P	110.0	7.5	0.050	-0.00002	0.00	-0.01
1100	PB1185	NB1116	NB1117	0.00000	P	110.0	57.4	0.050	0.00040	0.12	0.21
1101	PB1131	NB1063	NB1064	0.00000	P	110.0	147.5	0.150	0.00738	0.31	0.42
1102	PB1130	NB1064	NB1065	0.00000	P	110.0	66.2	0.150	0.00732	0.14	0.41
1103	PB1128	NB1065	NB1066	0.00000	P	110.0	59.1	0.150	0.00732	0.12	0.41
1104	PB1127	NB1066	NB1069	0.00000	P	110.0	192.2	0.150	0.00726	0.39	0.41
1105	PB1126	NB1069	NB1070	0.00000	P	110.0	119.1	0.150	0.00713	0.23	0.40
1106	PB1125	NB1067	NB1068	0.00000	P	110.0	147.9	0.050	0.00000	0.00	0.00
1107	PB1124	NB1068	N951	0.00000	P	110.0	66.2	0.050	0.00000	0.00	0.00
1108	PB1123	N951	N952	0.00000	P	110.0	59.1	0.050	0.00000	0.00	0.00
1109	PB1122	N952	N953	0.00000	P	110.0	192.7	0.050	0.00000	0.00	0.00
1110	PB1121	N953	N954	0.00000	P	110.0	125.2	0.050	0.00000	0.00	0.00
1111	P1133	N898	N1070	0.00000	P	110.0	133.8	0.150	0.00000	0.00	0.00
1112	P1134	N1070	N1071	0.00000	P	110.0	198.9	0.150	0.00000	0.00	0.00
1113	P1135	N1071	N1072	0.00000	P	110.0	48.7	0.150	0.00000	0.00	0.00
1114	P1136	N1072	N1073	0.00000	P	110.0	66.3	0.150	0.00000	0.00	0.00
1115	P1137	N1073	N1074	0.00000	P	110.0	168.1	0.150	0.00000	0.00	0.00
1116	P1138	N929	N1075	0.00000	P	110.0	144.3	0.150	0.00000	0.00	0.00
1117	P1139	N1075	N1076	0.00000	P	110.0	203.7	0.150	0.00000	0.00	0.00
1118	P1140	N1076	N1077	0.00000	P	110.0	39.9	0.150	0.00000	0.00	0.00
1119	P1141	N1077	N1078	0.00000	P	110.0	60.2	0.150	0.00000	0.00	0.00
1120	P1142	N1078	N1079	0.00000	P	110.0	177.5	0.150	0.00000	0.00	0.00
1121	P1143	N917	N1080	0.00000	P	110.0	140.2	0.150	0.01672	1.33	0.95
1122	P1144	N1080	N1081	0.00000	P	110.0	218.8	0.150	0.01672	2.07	0.95
1123	P1145	N1081	N1082	0.00000	P	110.0	36.3	0.150	0.01672	0.34	0.95
1124	P1146	N1082	N1083	0.00000	P	110.0	60.2	0.150	0.01672	0.57	0.95
1125	P1147	N1083	N1084	0.00000	P	110.0	181.7	0.150	0.01672	1.72	0.95
1126	P1149	N983	N1085	0.00000	P	110.0	174.8	0.100	0.00277	0.43	0.35
1127	P1150	N1085	N1086	0.00000	P	110.0	149.0	0.100	0.00277	0.37	0.35
1128	P1151	N1086	N1087	0.00000	P	110.0	136.8	0.100	0.00277	0.34	0.35
1129	P1152	N1087	N1088	0.00000	P	110.0	192.1	0.100	0.00277	0.47	0.35
1130	P1153	N1088	N1089	0.00000	P	110.0	105.9	0.100	0.00233	0.19	0.30
1131	P1154	N1089	N1090	0.00000	P	110.0	234.1	0.100	0.00189	0.28	0.24
1132	P1155	N1090	N1091	0.00000	P	110.0	91.4	0.100	0.00138	0.06	0.18
1133	P1156	N1091	N1092	0.00000	P	110.0	205.9	0.100	0.00113	0.10	0.14
1134	P1157	N1092	N1093	0.00000	P	110.0	110.6	0.100	0.00057	0.01	0.07
1135	P1158	N1093	N1094	0.00000	P	110.0	111.6	0.100	0.00025	0.00	0.03
1136	P944	N999	N978	0.00000	P	110.0	283.5	0.100	0.00019	0.00	0.02
1137	P1159	N977	N1095	0.00000	P	110.0	295.8	0.150	0.02106	4.30	1.19
1138	P1160	N1095	N1096	0.00000	P	110.0	325.5	0.150	0.00133	0.03	0.08
1139	P1161	N1096	N1097	0.00000	P	110.0	203.3	0.150	0.00031	0.00	0.02
1140	P1162	N1097	N1098	0.00000	P	110.0	279.2	0.150	0.00031	0.00	0.02
1141	P1163	N1098	N1099	0.00000	P	110.0	183.8	0.150	0.00031	0.00	0.02
1142	P1164	N1099	N1100	0.00000	P	110.0	258.4	0.150	0.00031	0.00	0.02
1143	P1165	N1100	N1101	0.00000	P	110.0	413.2	0.150	0.00031	0.00	0.02
1144	P1166	N1101	N1102	0.00000	P	110.0	1292.7	0.050	0.00031	1.66	0.16
1145	P1167	N983	N1001	0.00000	P	110.0	258.6	0.100	-0.00749	-3.99	-0.95
1146	P1168	N1001	N1104	0.00000	P	110.0	327.8	0.100	-0.01080	-9.97	-1.37
1147	P1169	N1104	N1105	0.00000	P	110.0	123.1	0.100	-0.01130	-4.07	-1.44
1148	P1170	N1105	N1106	0.00000	P	110.0	204.4	0.100	-0.01231	-7.92	-1.57
1149	P1171	N1106	N1107	0.00000	P	110.0	144.1	0.100	-0.01306	-6.23	-1.66
1150	P1172	N1107	N1108	0.00000	P	110.0	144.0	0.100	-0.01382	-6.91	-1.76
1151	P1173	N1108	N1109	0.00000	P	110.0	129.5	0.100	-0.01413	-6.48	-1.80
1152	P1174	N1109	N1110	0.00000	P	110.0	99.1	0.100	-0.01490	-5.47	-1.90
1153	P1175	N1110	N1111	0.00000	P	110.0	114.5	0.100	-0.01553	-6.82	-1.98
1154	P1176	N1111	N1112	0.00000	P	110.0	181.9	0.100	-0.01616	-11.66	-2.06
1155	P1177	N1026	N1113	0.00000	P	110.0	120.1	0.150	0.02738	2.83	1.55
1156	P1178	N1113	N1114	0.00000	P	110.0	227.8	0.150	0.02687	5.20	1.52
1157	P1179	N1114	N1115	0.00000	P	110.0	74.5	0.150	0.02501	1.49	1.42
1158	P1180	N1115	N1116	0.00000	P	110.0	243.2	0.150	0.02501	4.86	1.42
1159	P1181	N1116	N1117	0.00000	P	110.0	188.2	0.150	0.02501	3.76	1.42
1160	P1182	N1117	N1118	0.00000	P	110.0	100.1	0.150	0.02501	2.00	1.42
1161	P1183	N1118	N1132	0.00000	P	110.0	204.0	0.150	0.02501	4.07	1.42
1162	P1184	N1132	N1133	0.00000	P	110.0	40.7	0.150	0.02501	0.81	1.42
1163	P1185	N1133	N1134	0.00000	P	110.0	173.3	0.150	0.02501	3.46	1.42
1164	P1201	N1134	N1135	0.00000	P	110.0	126.6	0.150	0.02501	2.53	1.42
1165	P1202	N1135	N871	0.00000	P	110.0	156.3	0.150	0.02144	2.35	1.21
1166	P1204	N1198	N1137	0.00000	P	110.0	78.5	0.100	-0.01195	-2.88	-1.52
1167	P1205	N1137	N1138	0.00000	P	110.0	76.0	0.100	-0.01195	-2.79	-1.52
1168	P1206	N1138	N1139	0.00000	P	110.0	294.5	0.100	-0.01195	-10.81	-1.52
1169	P1207	N1139	N1140	0.00000	P	110.0	312.0	0.100	-0.01195	-11.45	-1.52

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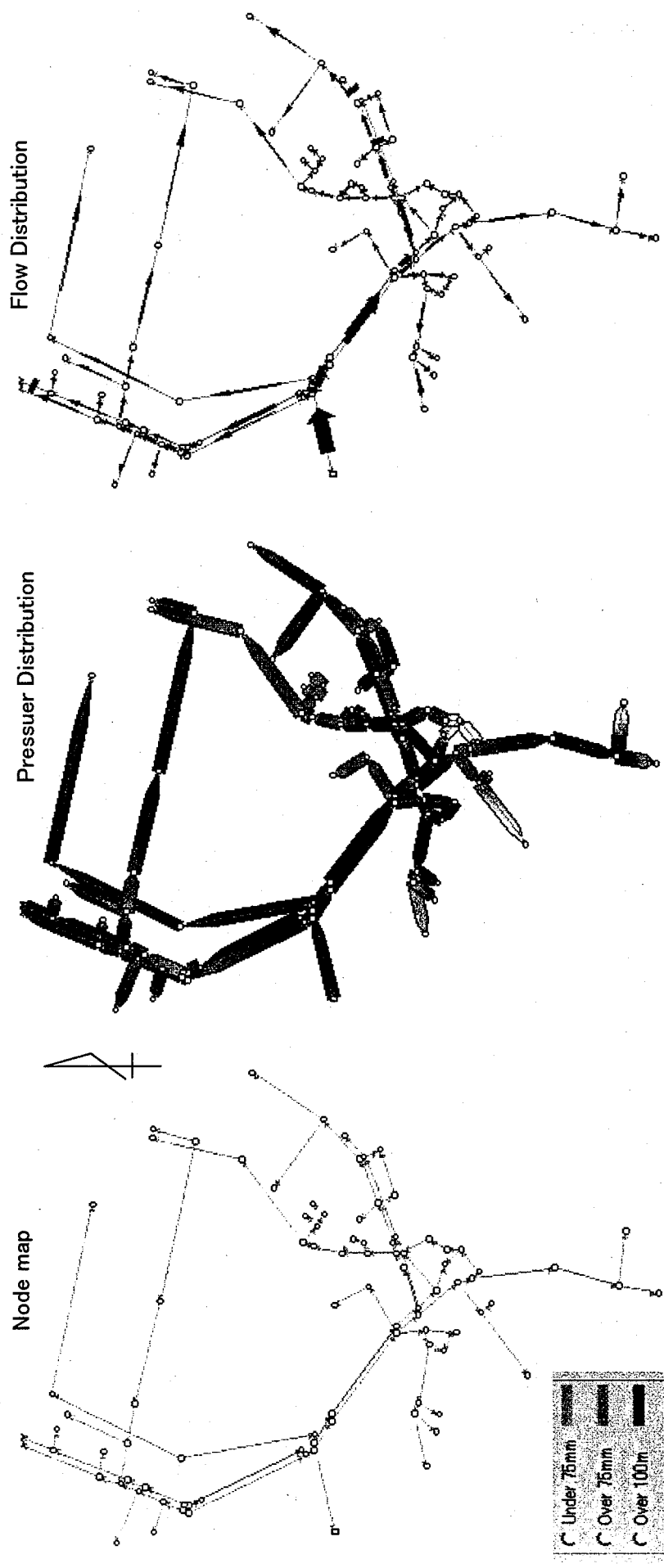
1170	P1208	N1140	N1141	0.00000	P	110.0	66.3	0.100	-0.01195	-2.43	-1.52
1171	P1210	N1084	N1142	0.00000	P	110.0	223.7	0.150	0.01672	2.12	0.95
1172	P1211	N1142	N1143	0.00000	P	110.0	99.0	0.150	0.01672	0.94	0.95
1173	P1212	N1143	N1144	0.00000	P	110.0	81.3	0.150	0.01672	0.77	0.95
1174	P1213	N1144	N1145	0.00000	P	110.0	124.5	0.150	0.01672	1.18	0.95
1175	P1214	N1145	N1146	0.00000	P	110.0	56.0	0.150	0.01672	0.53	0.95
1176	P1215	N1146	N1147	0.00000	P	110.0	41.5	0.150	0.01672	0.39	0.95
1177	P1216	N1079	N1148	0.00000	P	110.0	231.1	0.150	0.00000	0.00	0.00
1178	P1217	N1148	N1149	0.00000	P	110.0	100.3	0.150	0.00000	0.00	0.00
1179	P1218	N1149	N1150	0.00000	P	110.0	78.0	0.150	0.00000	0.00	0.00
1180	P1219	N1150	N1151	0.00000	P	110.0	125.6	0.150	0.00000	0.00	0.00
1181	P1220	N1151	N1152	0.00000	P	110.0	52.8	0.150	0.00000	0.00	0.00
1182	P1221	N1152	N1153	0.00000	P	110.0	51.1	0.150	0.00000	0.00	0.00
1183	P977	N958	NV59_1	0.00000	P	110.0	113.6	0.050	0.00000	0.00	0.00
1184	P887_2	N1154	N868	0.00000	P	120.0	143.5	0.200	-0.01630	-0.27	-0.52
1185	P957_2	N1155	N939	0.00000	P	120.0	156.2	0.080	0.00151	0.32	0.30
1186	P1222	N1154	N1156	0.00000	P	110.0	194.7	0.100	0.00651	2.32	0.83
1187	P1223	N1156	N1157	0.00000	P	110.0	280.8	0.100	0.00651	3.35	0.83
1188	P1224	N1157	N1155	0.00000	P	110.0	121.2	0.100	0.00600	1.24	0.76
1189	P1226	N1155	N1158	0.00000	P	110.0	104.0	0.100	0.00313	0.32	0.40
1190	P1227	N1158	N1159	0.00000	P	110.0	304.9	0.100	0.00272	0.73	0.35
1191	P618_2	N1160	N613	0.00000	P	120.0	94.6	0.080	-0.00058	-0.03	-0.12
1192	P1049_2	N1161	N622	0.00000	P	120.0	140.8	0.150	0.00042	0.00	0.02
1193	P1228	N1160	N1162	0.00000	P	110.0	345.4	0.150	-0.00196	-0.06	-0.11
1194	P1229	N1162	N1161	0.00000	P	110.0	190.0	0.150	0.00013	0.00	0.01
1195	P1230	N628	N1164	0.00000	P	110.0	126.9	0.100	0.00821	2.32	1.05
1196	P1231	N1164	N627	0.00000	P	110.0	286.0	0.100	0.00403	1.41	0.51
1197	P1232	N1164	N1162	0.00000	P	110.0	492.7	0.100	0.00360	1.96	0.46
1198	P372_2	N1165	N372	0.00000	P	120.0	54.0	0.150	-0.01587	-0.40	-0.90
1199	P1233	N1165	N1166	0.00000	P	110.0	459.0	0.150	0.00401	0.31	0.23
1200	P1234	N510	N1166	0.00000	P	110.0	75.4	0.150	-0.00254	-0.02	-0.14
1201	P1235	N510	N564	0.00000	P	110.0	319.9	0.200	0.02841	1.99	0.90
1202	P413	N388	N1191	0.00000	P	110.0	135.7	0.250	0.01189	0.06	0.24
1203	P397	N400	N389	0.00000	P	110.0	401.0	0.250	0.00154	0.00	0.03
1204	P386	N389	N399	0.00000	P	110.0	121.9	0.250	0.00058	0.00	0.01
1205	P1238	N398	N387	0.00000	P	110.0	10.8	0.200	-0.04637	-0.17	-1.48
1206	P1239	N393	N1168	0.00000	P	110.0	116.4	0.150	0.00083	0.00	0.05
1207	P1240	N1168	N1169	0.00000	P	110.0	498.1	0.150	-0.00007	0.00	0.00
1208	P1241	N1169	N1170	0.00000	P	110.0	154.4	0.100	0.00000	0.00	0.00
1209	P1242	N1170	NV20_1	0.00000	P	110.0	15.1	0.100	0.00000	0.00	0.00
1210	P1243	N1171	N1172	0.00000	P	110.0	520.2	0.100	-0.00231	-0.91	-0.29
1211	P205_2	N1173	N1178	0.00000	P	120.0	10.9	0.300	-0.03421	-0.01	-0.48
1212	P1244	N1172	N1173	0.00000	P	110.0	767.3	0.100	-0.00259	-1.67	-0.33
1213	P1245	N1169	N1174	0.00000	P	110.0	18.6	0.100	-0.00007	0.00	-0.01
1214	P1246	N1174	N1175	0.00000	P	110.0	158.9	0.100	-0.00070	-0.03	-0.09
1215	P1247	N1175	NV19_1	0.00000	P	110.0	36.0	0.100	0.00000	0.00	0.00
1216	P1248	N1176	N1177	0.00000	P	110.0	521.9	0.100	-0.00009	0.00	-0.01
1217	P205_2_2	N1178	N207	0.00000	P	120.0	206.4	0.300	-0.03539	-0.23	-0.50
1218	P1249	N1177	N1178	0.00000	P	110.0	770.4	0.100	-0.00099	-0.28	-0.13
1219	P1250	N1172	N25	0.00000	P	110.0	225.7	0.100	-0.00061	-0.03	-0.08
1220	P1251	N416	N1175	0.00000	P	110.0	100.4	0.100	0.00152	0.08	0.19
1221	P225_2	N1179	N227	0.00000	P	120.0	250.7	0.250	0.00047	0.00	0.01
1222	P1254	N1182	N210	0.00000	P	110.0	251.2	0.400	-0.03653	-0.09	-0.29
1223	P191_2	NV12_2	N192	0.00000	P	120.0	12.4	0.200	0.00000	0.00	0.00
1224	V12	NV12_1	NV12_2	0.00000	V	100000000.0	0.0	0.200	0.00000	37.49	
1225	P120	N116	N1183	0.00000	P	110.0	58.6	0.200	-0.00069	0.00	-0.02
1226	P120_2	N1183	N117	0.00000	P	110.0	392.0	0.200	-0.00213	-0.02	-0.07
1227	P1197	N1183	N1128	0.00000	P	110.0	80.2	0.100	0.00144	0.06	0.18
1228	P1257	N1197	N231	0.00000	P	110.0	90.8	0.200	0.00000	0.00	0.00
1229	P1258	N180	N117	0.00000	P	110.0	118.1	0.200	0.00307	0.01	0.10
1230	P158	N181	N118	0.00000	P	110.0	80.6	0.200	0.00594	0.03	0.19
1231	P214	N157	NV14_1	0.00000	P	110.0	20.4	0.400	0.00000	0.00	0.00
1232	P215	N118	N1196	0.00000	P	110.0	94.6	0.400	0.00594	0.00	0.05
1233	P1252	N212	N1180	0.00000	P	110.0	122.2	0.200	-0.03653	-1.21	-1.16
1234	P1253	N229	N1181	0.00000	P	110.0	109.2	0.200	0.00047	0.00	0.01
1235	P1125	N1063	N1184	0.00000	P	110.0	256.1	0.200	0.00000	0.00	0.00
1236	P1259	N1184	N1185	0.00000	P	110.0	355.5	0.200	0.00000	0.00	0.00
1237	P1260	N1185	N1186	0.00000	P	110.0	361.6	0.200	0.00000	0.00	0.00
1238	P1261	N1186	N1187	0.00000	P	110.0	90.2	0.200	0.00000	0.00	0.00
1239	P1262	N1187	N1188	0.00000	P	110.0	111.2	0.200	0.00000	0.00	0.00
1240	P1263	N1188	N1189	0.00000	P	110.0	123.1	0.200	0.00000	0.00	0.00
1241	P70	N75	N76	0.00000	P	110.0	333.2	0.200	0.00000	0.00	0.00
1242	P71	N76	N77	0.00000	P	110.0	77.9	0.200	0.00000	0.00	0.00
1243	P72	N77	N78	0.00000	P	110.0	127.6	0.200	0.00000	0.00	0.00
1244	P73	N78	N79	0.00000	P	110.0	138.1	0.200	0.00000	0.00	0.00
1245	P65	N1060	N70	0.00000	P	110.0	359.6	0.300	-0.04104	-0.61	-0.58
1246	P66	N70	N71	0.00000	P	110.0	58.8	0.300	-0.04104	-0.10	-0.58
1247	P67	N71	N72	0.00000	P	110.0	145.9	0.300	-0.04104	-0.25	-0.58
1248	P68	N72	N73	0.00000	P	110.0	153.1	0.300	-0.04104	-0.26	-0.58
1249	P104_2	NV15_2	N101	0.00000	P	120.0	49.5	0.100	0.00000	0.00	0.00
1250	V15	NV15_1	NV15_2	0.00000	V	100000000.0	0.0	0.100	0.00000	-51.93	
1251	P6_2	NV16_2	N5	0.00000	P	110.0	115.5	0.100	0.00000	0.00	0.00
1252	V16	NV16_1	NV16_2	0.00000	V	100000000.0	0.0	0.100	0.00000	37.49	
1253	P385_2	NV17_2	N388	0.00000	P	120.0	48.5	0.250	0.01215	0.02	0.25

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1254	V17	NV17_1	NV17_2	0.00000	V	0.0	0.0	0.250	0.01215	0.00	
1255	P396_2	NV18_2	N399	0.00000	P	120.0	56.1	0.250	0.00000	0.00	0.00
1256	V18	NV18_1	NV18_2	0.00000	V	100000000.0	0.0	0.250	0.00000	-12.32	
1257	P1247_2	NV19_2	N1176	0.00000	P	110.0	264.0	0.100	0.00000	0.00	0.00
1258	V19	NV19_1	NV19_2	0.00000	V	100000000.0	0.0	0.100	0.00000	22.66	
1259	P1242_2	NV20_2	N1171	0.00000	P	110.0	287.8	0.100	0.00000	0.00	0.00
1260	V20	NV20_1	NV20_2	0.00000	V	100000000.0	0.0	0.100	0.00000	24.93	
1261	P337_2	NV21_2	N339	0.00000	P	120.0	229.4	0.100	-0.00132	-0.12	-0.17
1262	V21	NV21_1	NV21_2	0.00000	V	0.0	0.0	0.100	-0.00132	0.00	
1263	P315_2	NV22_2	N318	0.00000	P	120.0	146.0	0.200	0.00923	0.10	0.29
1264	V22	NV22_1	NV22_2	0.00000	V	0.0	0.0	0.200	0.00923	0.00	
1265	P368_2	NV23_2	N368	0.00000	P	120.0	138.0	0.150	0.00000	0.00	0.00
1266	V23	NV23_1	NV23_2	0.00000	V	100000000.0	0.0	0.150	0.00000	-20.73	
1267	P563_2	NV24_2	N555	0.00000	P	120.0	174.8	0.200	0.00000	0.00	0.00
1268	V24	NV24_1	NV24_2	0.00000	V	100000000.0	0.0	0.200	0.00000	-17.04	
1269	P490_2	NV27_2	N493	0.00000	P	120.0	12.3	0.150	0.00000	0.00	0.00
1270	V27	NV27_1	NV27_2	0.00000	V	100000000.0	0.0	0.150	0.00000	-97.95	
1271	P1264	N746	N705	0.00000	P	110.0	27.9	0.200	0.00694	0.01	0.22
1272	P1007_2	NV28_2	N991	0.00000	P	120.0	16.3	0.150	0.00000	0.00	0.00
1273	V28	NV28_1	NV28_2	0.00000	V	100000000.0	0.0	0.150	0.00000	-21.20	
1274	P707_2	NV29_2	N692	0.00000	P	120.0	5.2	0.200	0.00000	0.00	0.00
1275	V29	NV29_1	NV29_2	0.00000	V	100000000.0	0.0	0.200	0.00000	-20.85	
1276	P764_2	NV30_2	N750	0.00000	P	120.0	244.5	0.100	0.00000	0.00	0.00
1277	V30	NV30_1	NV30_2	0.00000	V	100000000.0	0.0	0.100	0.00000	-21.50	
1278	P1021_2	NV31_2	N999	0.00000	P	120.0	12.7	0.100	0.00000	0.00	0.00
1279	V31	NV31_1	NV31_2	0.00000	V	100000000.0	0.0	0.100	0.00000	9.96	
1280	P780_2	NV32_2	N1190	0.00000	P	120.0	141.8	0.100	0.00000	0.00	0.00
1281	V32	NV32_1	NV32_2	0.00000	V	100000000.0	0.0	0.100	0.00000	-0.03	
1282	P1023_2	NV33_2	N999	0.00000	P	110.0	10.9	0.100	0.00000	0.00	0.00
1283	V33	NV33_1	NV33_2	0.00000	V	100000000.0	0.0	0.100	0.00000	-46.30	
1284	P780_2_2	N1190	N715	0.00000	P	120.0	69.8	0.100	-0.00092	-0.02	-0.12
1285	P1265	N1190	NV34_1	0.00000	P	110.0	16.8	0.800	0.00000	0.00	0.00
1286	P1265_2	NV34_2	N769	0.00000	P	110.0	16.8	0.800	0.00000	0.00	0.00
1287	V34	NV34_1	NV34_2	0.00000	V	100000000.0	0.0	0.800	0.00000	56.29	
1288	P1024_2	NV35_2	N1000	0.00000	P	120.0	16.8	0.115	0.00000	0.00	0.00
1289	V35	NV35_1	NV35_2	0.00000	V	100000000.0	0.0	0.115	0.00000	56.39	
1290	P995_2	NV36_2	N979	0.00000	P	120.0	14.9	0.065	0.00000	0.00	0.00
1291	V36	NV36_1	NV36_2	0.00000	V	100000000.0	0.0	0.065	0.00000	57.06	
1292	P802_2	NV37_2	N785	0.00000	P	120.0	42.3	0.080	0.00000	0.00	0.00
1293	V37	NV37_1	NV37_2	0.00000	V	100000000.0	0.0	0.080	0.00000	27.03	
1294	P1203	N1136	N797	0.00000	P	110.0	72.6	0.100	0.00919	1.64	1.17
1295	P905_2	NV38_2	N1024	0.00000	P	110.0	130.9	0.040	0.00000	0.00	0.00
1296	V38	NV38_1	NV38_2	0.00000	V	100000000.0	0.0	0.040	0.00000	-22.98	
1297	P817_2	NV39_2	N799	0.00000	P	120.0	118.4	0.080	0.00000	0.00	0.00
1298	V39	NV39_1	NV39_2	0.00000	V	100000000.0	0.0	0.080	0.00000	-25.05	
1299	P993_2	NV40_2	N975	0.00000	P	120.0	31.7	0.080	0.00000	0.00	0.00
1300	V40	NV40_1	NV40_2	0.00000	V	100000000.0	0.0	0.080	0.00000	-30.47	
1301	P903_2	NV41_2	N885	0.00000	P	120.0	62.7	0.150	0.00000	0.00	0.00
1302	V41	NV41_1	NV41_2	0.00000	V	100000000.0	0.0	0.150	0.00000	22.10	
1303	P1266	N987	N885	0.00000	P	110.0	28.3	0.100	0.00274	0.07	0.35
1304	P1267	N885	N975	0.00000	P	110.0	20.7	0.100	0.00192	0.03	0.24
1305	P996_2	NV42_2	N980	0.00000	P	120.0	19.7	0.080	0.00000	0.00	0.00
1306	V42	NV42_1	NV42_2	0.00000	V	100000000.0	0.0	0.080	0.00000	63.34	
1307	P895_2	NV43_2	N876	0.00000	P	120.0	17.9	0.150	0.00000	0.00	0.00
1308	V43	NV43_1	NV43_2	0.00000	V	100000000.0	0.0	0.150	0.00000	68.13	
1309	P894_2	NV44_2	N875	0.00000	P	120.0	223.0	0.150	0.00000	0.00	0.00
1310	V44	NV44_1	NV44_2	0.00000	V	100000000.0	0.0	0.150	0.00000	-67.97	
1311	P883_2	NV45_2	N864	0.00000	P	120.0	14.6	0.050	0.00000	0.00	0.00
1312	V45	NV45_1	NV45_2	0.00000	V	100000000.0	0.0	0.050	0.00000	66.11	
1313	P1268	N874	N876	0.00000	P	110.0	97.6	0.150	0.00651	0.16	0.37
1314	P954_2	NV48_2	N936	0.00000	P	120.0	21.8	0.150	0.00000	0.00	0.00
1315	V48	NV48_1	NV48_2	0.00000	V	100000000.0	0.0	0.150	0.00000	88.05	
1316	P1084_2	NV50_2	N878	0.00000	P	110.0	16.3	0.100	0.00000	0.00	0.00
1317	V50	NV50_1	NV50_2	0.00000	V	100000000.0	0.0	0.100	0.00000	82.80	
1318	P962_2	NV54_2	N943	0.00000	P	120.0	98.0	0.080	0.00000	0.00	0.00
1319	V54	NV54_1	NV54_2	0.00000	V	100000000.0	0.0	0.080	0.00000	-84.15	
1320	P982_2	NV55_2	N964	0.00000	P	120.0	23.4	0.080	0.00000	0.00	0.00
1321	V55	NV55_1	NV55_2	0.00000	V	100000000.0	0.0	0.080	0.00000	74.73	
1322	P988_2	NV56_2	N970	0.00000	P	120.0	182.3	0.080	0.00000	0.00	0.00
1323	V56	NV56_1	NV56_2	0.00000	V	100000000.0	0.0	0.080	0.00000	137.61	
1324	P951_2	NV57_2	N933	0.00000	P	120.0	11.1	0.150	0.00000	0.00	0.00
1325	V57	NV57_1	NV57_2	0.00000	V	100000000.0	0.0	0.150	0.00000	-12.57	
1326	P977_2	NV59_2	N960	0.00000	P	110.0	7.3	0.050	0.00000	0.00	0.00
1327	V59	NV59_1	NV59_2	0.00000	V	100000000.0	0.0	0.050	0.00000	-137.62	
1328	P1066_2	NV60_2	N891	0.00000	P	110.0	14.0	0.050	0.00000	0.00	0.00
1329	V60	NV60_1	NV60_2	0.00000	V	100000000.0	0.0	0.050	0.00000	-123.46	
1330	P1269	N1023	N968	0.00000	P	110.0	27.7	0.150	0.00088	0.00	0.05
1331	P1271	N944	N934	0.00000	P	110.0	11.9	0.150	0.00019	0.00	0.01
1332	P1272	N1023	N944	0.00000	P	110.0	27.7	0.150	0.00747	0.06	0.42
1333	P1236	N399	N1195	0.00000	P	110.0	319.2	0.250	0.00000	0.00	0.00
1334	P1237	N1167	N387	0.00000	P	110.0	359.3	0.250	0.10044	7.81	2.05
1335	P413_2	N1191	N1193	0.00000	P	110.0	397.1	0.250	0.00845	0.09	0.17
1336	P387	N1191	N390	0.00000	P	110.0	65.5	0.100	0.00045	0.01	0.06
1337	P1190	N1122	N1191	0.00000	P	110.0	246.7	0.100	-0.00300	-0.70	-0.38

Pipe data, Dili

1338	P408	N412	N1193	0.00000	P	110.0	21.6	0.080	-0.00357	-0.25	-0.71
1339	P1273	N419	N1194	0.00000	P	110.0	30.6	0.200	-0.00333	0.00	-0.11
1340	P1273_2	N1194	N1193	0.00000	P	110.0	115.2	0.200	-0.00488	-0.03	-0.16
1341	P422_2	NV61_2	N428	0.00000	P	120.0	31.1	0.250	-0.00077	0.00	-0.02
1342	V61	NV61_1	NV61_2	0.00000	V	100000000.0	0.0	0.250	0.00000	-39.25	
1343	P1107_2	NV62_2	N1048	0.00000	P	110.0	4303.5	0.100	0.00000	0.00	0.00
1344	V62	NV62_1	NV62_2	0.00000	V	100000000.0	21.7	0.150	0.00000	150.33	
1345	P851	N831	N832	0.00000	P	110.0	35.2	0.150	-0.02258	-0.58	-1.28
1346	P210_2	NV63_2	N213	0.00000	P	120.0	214.4	0.400	0.00000	0.00	0.00
1347	V63	NV63_1	NV63_2	0.00000	V	100000000.0		0.400	0.00000	38.79	
1348	P228_2	N64_2	N230	0.00000	P	120.0	232.0	0.250	0.00000	0.00	0.00
1349	64	N64_1	N64_2	0.00000	V	100000000.0		0.250	0.00000	5.00	
1350	P592_2	NV65_2	N105	0.00000	P	120.0	19.6	0.100	0.00000	0.00	0.00
1351	V65	NV65_1	NV65_2	0.00000	V	100000000.0		0.100	0.00000	-67.24	
1352	P1274	N84	N98	0.00000	P	110.0	34.6	0.080	0.00824	1.89	1.64
1353	P1275	N365	N359	0.00000	P	110.0	27.7	0.100	0.00659	0.34	0.84
1354	P1277	N585	N583	0.00000	P	110.0	45.0	0.150	0.00416	0.03	0.24
1355	P214_2	NV14_2	N118	0.00000	P	110.0	20.4	0.400	0.00000	0.00	0.00
1356	V14	NV14_1	NV14_2	0.00000	V	100000000.0		0.400	0.00000	30.53	
1357	P1256_2	N1196	NV66_1	0.00000	P	110.0	36.4	0.400	0.00000	0.00	0.00
1358	P159	N1196	N159	0.00000	P	110.0	67.4	0.250	0.00594	0.01	0.12
1359	P231_2	N1197	N233	0.00000	P	120.0	83.6	0.250	0.00000	0.00	0.00
1360	P1256_2_2	NV66_2	N214	0.00000	P	110.0	36.4	0.400	0.00000	0.00	0.00
1361	V66	NV66_1	NV66_2	0.00000	V	100000000.0		0.400	0.00000	74.47	
1362	P299	N299	N300	0.00000	P	110.0	234.8	0.100	0.00276	0.57	0.35
1363	P300	N300	N301	0.00000	P	110.0	65.1	0.050	0.00000	0.00	0.00
1364	P328	N300	N329	0.00000	P	110.0	168.0	0.050	0.00182	5.55	0.93
1365	P1278	N311	N293	0.00000	P	110.0	48.4	0.100	0.00487	0.34	0.62



The Study on Urgent Improvement Project for the Water Supply System in East Timor

Pipe Network Analysis for Lospalos, 2003

Figure

H-5

Node data, Los Palos

-1		Input Data					Results		
NO	Node Name	Source Head (m)	Demand (m ³ /s)	Altitude (m)	X Coordinates	Y Coordinates	Total Head (m)	Pressure Head (m)	Source Inflow (m ³ /s)
1	N2		0.00000	400.00	13.0	19.0	432.70	32.70	
2	N3		0.00000	389.00	16.4	26.0	433.41	44.41	
3	N4		0.00000	390.00	18.0	27.0	433.38	43.38	
4	N5		0.00000	390.00	22.8	30.6	433.30	43.30	
5	N6		0.00000	392.00	23.8	31.8	425.68	33.68	
6	N7		0.00000	392.00	26.0	31.0	419.60	27.60	
7	N8		0.00066	392.00	26.8	30.6	419.42	27.42	
8	N9		0.00044	389.00	29.6	29.6	416.78	27.78	
9	N10		0.00000	394.00	32.0	28.6	415.96	21.96	
10	N11		0.00022	388.00	34.2	26.6	415.21	27.21	
11	N12		0.00066	380.00	36.8	22.6	414.88	34.88	
12	N13		0.00044	383.00	30.4	23.8	415.05	32.05	
13	N14		0.00000	400.00	12.6	19.0	432.66	32.66	
14	N15		0.00000	389.00	16.0	26.0	433.18	44.18	
15	N16		0.00000	390.00	17.6	27.0	430.22	40.22	
16	N17		0.00088	390.00	22.4	30.6	420.82	30.82	
17	N18		0.00000	392.00	23.4	31.8	420.14	28.14	
18	N19		0.00066	395.00	25.2	34.0	419.49	24.49	
19	N20		0.00000	395.00	25.4	34.8	419.44	24.44	
20	N21		0.00000	390.00	26.0	39.4	419.31	29.31	
21	N22		0.00000	390.00	25.0	43.0	419.20	29.20	
22	N23		0.00044	409.00	24.6	45.2	419.18	10.18	
23	N24		0.00044	401.00	28.0	43.4	419.10	18.10	
24	N28		0.00000	401.00	25.8	35.2	419.44	18.44	
25	N29		0.00044	401.00	27.0	34.2	419.42	18.42	
26	N30		0.00000	399.00	27.0	33.4	419.42	20.42	
27	N31		0.00044	396.00	27.6	32.4	419.42	23.42	
28	N32		0.00044	394.00	26.8	31.0	419.42	25.42	
29	N33		0.00000	393.00	26.8	29.0	419.21	26.21	
30	N34		0.00000	388.00	26.8	27.6	419.18	31.18	
31	N35		0.00000	389.00	27.2	26.0	418.63	29.63	
32	N36		0.00000	388.00	27.4	25.4	418.42	30.42	
33	N37		0.00044	385.00	32.0	22.0	418.01	33.01	
34	N38		0.00044	380.00	33.0	19.4	426.63	46.63	
35	N39		0.00022	378.00	33.2	17.0	417.97	39.97	
36	N40		0.00000	402.00	14.0	16.6	432.35	30.35	
37	N41		0.00044	406.00	13.8	16.2	430.85	24.85	
38	N42		0.00044	405.00	14.2	15.2	430.49	25.49	
39	N43		0.00000	405.00	14.6	14.0	430.45	25.45	
40	N44		0.00044	403.00	16.4	9.6	430.41	27.41	
41	N46		0.00000	403.00	13.2	17.6	431.66	28.66	
42	N47		0.00000	403.00	14.4	15.6	432.34	29.34	
43	N48		0.00000	403.00	16.8	9.6	432.30	29.30	
44	N57		0.00000	392.00	18.6	31.8	417.52	25.52	
45	N58		0.00044	392.00	22.6	32.2	420.57	28.57	
46	N59		0.00000	392.00	21.8	32.4	420.32	28.32	
47	N60		0.00000	405.00	18.0	31.6	417.20	12.20	
48	N61		0.00022	392.00	17.0	32.8	417.10	25.10	
49	N62		0.00066	402.00	24.2	17.4	427.27	25.27	
50	N63		0.00000	405.00	18.6	16.0	428.73	23.73	
51	N64		0.00022	405.00	16.4	15.6	429.29	24.29	
52	N66		0.00044	400.00	18.0	12.2	429.17	29.17	
53	N70		0.00000	405.00	15.6	18.6	433.37	28.37	
54	N73		0.00000	392.00	27.4	28.8	419.20	27.20	
55	N74		0.00044	391.00	27.6	28.2	419.19	28.19	
56	N75		0.00044	388.00	28.3	26.2	418.41	30.41	
57	N77		0.00022	380.00	33.7	17.0	426.61	46.61	
58	N78		0.00066	392.00	24.8	32.8	420.44	28.44	
59	N79		0.00044	395.00	26.2	33.3	419.55	24.55	
60	N80		0.00022	402.00	20.1	37.9	419.31	17.31	
61	N81		0.00044	392.00	21.5	33.2	420.34	28.34	
62	N82		0.00044	392.00	22.4	33.9	420.47	28.47	
63	N84		0.00000	390.00	25.0	29.0	420.61	30.61	
64	N87		0.00066	390.00	23.9	27.1	420.46	30.46	
65	N88		0.00000	390.10	16.1	25.3	432.74	42.64	
66	N83		0.00000	386.00	13.3	19.7	432.70	46.70	
67	N86		0.00000	388.68	23.5	35.3	419.35	30.67	

Node data, Los Palos

68	N89		0.00044	388.68	24.1	35.9	419.15	30.47	
69	N91		0.00044	405.00	10.9	15.0	430.11	25.11	
70	N93		0.00044	389.00	28.6	28.6	416.45	27.45	
71	N95		0.00000	392.00	27.7	30.5	425.32	33.32	
72	N96		0.00000	394.00	32.1	28.8	425.32	31.32	
73	N97		0.00000	393.00	33.3	27.8	425.32	32.32	
74	N98		0.00044	389.00	30.0	30.5	416.19	27.19	
75	N99		0.00044	394.00	32.5	29.7	415.92	21.92	
76	N100		0.00000	391.37	27.4	30.4	419.62	28.25	
77	N101		0.00022	392.00	17.9	32.9	417.51	25.51	
78	N102		0.00044	405.00	15.1	32.3	417.10	12.10	
79	N104		0.00000	402.50	12.8	18.6	432.38	29.88	
80	N105		0.00000	400.00	13.1	18.8	432.37	32.37	
81	N106		0.00044	410.00	11.5	17.1	431.23	21.23	
82	N107		0.00044	397.00	19.1	11.4	433.34	36.34	
83	N108		0.00044	405.00	16.0	14.3	430.41	25.41	
84	N109		0.00044	397.00	29.5	13.6	432.99	35.99	
85	N110		0.00000	403.00	16.1	11.4	432.30	29.30	
86	N111		0.00044	403.00	17.2	11.6	432.26	29.26	
87	N112		0.00000	385.00	28.9	26.6	418.36	33.36	
88	N113		0.00022	385.00	29.6	25.9	418.30	33.30	
89	N114		0.00022	385.00	28.9	25.5	418.35	33.35	
90	N117		0.00000	405.00	16.9	26.1	433.40	28.40	
91	N118	440.00	0.00000	405.00	11.6	27.1	440.00	35.00	0.02002
92	N115		0.00000	389.77	15.8	25.5	432.77	43.00	

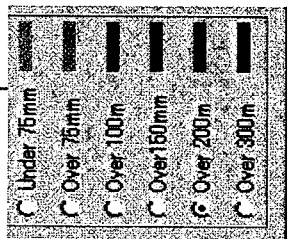
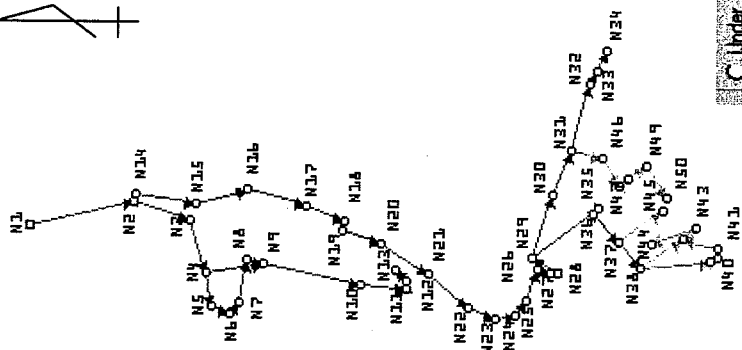
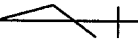
Pipe data, Los Palos

NO	Pipe Name	Start Node	End Node	Input Data				Results				
				Demand (m ³ /s)	Type Pipe: P Pump: PM	Roughness Coeff. Coeff. A	Length(m) Coeff. B	Diameter(m) Coeff. C	Flow (m ³ /s)	Head Loss (m)	Veloc. (m/s)	Loss Coeff.
					Valve: V	Loss Coeff.	Head(m)	Diameter(m)				
					Red. V: VA	Start(S)/End(E)						
					Fix Head: E	Head Loss (m)						
					Fix Flow: J							
1	P2	N2	N83	0.00000	P	110.0	77.0	0.250	-0.00444	-0.01	-0.091	
2	P3	N3	N4	0.00000	P	110.0	188.7	0.250	0.00654	0.03	0.133	
3	P4	N4	N5	0.00000	P	110.0	600.0	0.250	0.00654	0.08	0.133	
4	P5	N5	N6	0.00000	P	110.0	156.2	0.075	0.00654	7.62	1.480	
5	P6	N18	N7	0.00000	P	110.0	272.0	0.075	0.00116	0.54	0.262	
6	P7	N7	N8	0.00000	P	110.0	89.4	0.075	0.00116	0.18	0.262	
7	P8	N8	N100	0.00000	P	110.0	62.4	0.075	-0.00152	-0.21	-0.344	
8	P9	N9	N10	0.00000	P	110.0	260.0	0.075	0.00148	0.81	0.335	
9	P10	N10	N11	0.00000	P	110.0	297.3	0.075	0.00132	0.75	0.299	
10	P11	N11	N12	0.00000	P	110.0	477.1	0.075	0.00066	0.33	0.149	
11	P12	N11	N13	0.00000	P	110.0	472.0	0.075	0.00044	0.16	0.100	
12	P13	N14	N115	0.00000	P	110.0	723.7	0.100	-0.00062	-0.11	-0.078	
13	P14	N15	N16	0.00000	P	110.0	188.7	0.100	0.00754	2.96	0.961	
14	P15	N16	N17	0.00000	P	110.0	600.0	0.100	0.00754	9.40	0.961	
15	P16	N17	N18	0.00000	P	110.0	156.2	0.100	0.00380	0.69	0.484	
16	P17	N18	N19	0.00000	P	110.0	284.3	0.100	0.00265	0.64	0.337	
17	P18	N19	N20	0.00000	P	110.0	82.5	0.100	0.00133	0.05	0.169	
18	P19	N20	N21	0.00000	P	110.0	463.9	0.100	0.00088	0.14	0.112	
19	P20	N21	N22	0.00000	P	110.0	373.6	0.100	0.00088	0.11	0.112	
20	P21	N22	N23	0.00000	P	110.0	223.6	0.100	0.00044	0.02	0.056	
21	P22	N22	N24	0.00000	P	110.0	302.7	0.075	0.00044	0.10	0.100	
22	P26	N20	N28	0.00000	P	110.0	56.6	0.100	0.00045	0.00	0.057	
23	P27	N28	N29	0.00000	P	110.0	156.2	0.100	0.00045	0.01	0.057	
24	P28	N29	N30	0.00000	P	110.0	80.0	0.100	0.00029	0.00	0.036	
25	P29	N30	N31	0.00000	P	110.0	116.6	0.100	0.00029	0.00	0.036	
26	P30	N31	N32	0.00000	P	110.0	161.2	0.100	-0.00015	0.00	-0.020	
27	P31	N32	N8	0.00000	P	110.0	40.0	0.100	-0.00004	0.00	-0.005	
28	P32	N8	N33	0.00000	P	110.0	160.0	0.100	0.00198	0.21	0.252	
29	P33	N33	N34	0.00000	P	110.0	140.0	0.075	0.00031	0.02	0.070	
30	P34	N34	N35	0.00000	P	110.0	164.9	0.075	0.00154	0.55	0.349	
31	P35	N35	N36	0.00000	P	110.0	63.2	0.075	0.00154	0.21	0.349	
32	P36	N36	N37	0.00000	P	110.0	572.0	0.075	0.00066	0.40	0.149	
33	P37	N37	N39	0.00000	P	110.0	514.2	0.075	0.00022	0.05	0.050	
34	P39	N105	N40	0.00000	P	110.0	233.9	0.100	0.00044	0.02	0.056	
35	P40	N40	N47	0.00000	P	110.0	107.7	0.100	0.00044	0.01	0.056	
36	P41	N41	N42	0.00000	P	110.0	107.7	0.100	0.00330	0.37	0.420	
37	P42	N42	N43	0.00000	P	110.0	126.5	0.100	0.00088	0.04	0.112	
38	P43	N43	N44	0.00000	P	110.0	475.4	0.100	0.00044	0.04	0.056	
39	P46	N14	N104	0.00000	P	110.0	38.1	0.100	0.00506	0.28	0.644	
40	P47	N46	N41	0.00000	P	110.0	152.3	0.100	0.00418	0.80	0.532	
41	P48	N47	N110	0.00000	P	110.0	452.4	0.100	0.00044	0.04	0.056	
42	P59	N17	N58	0.00000	P	110.0	161.2	0.100	0.00220	0.26	0.280	
43	P60	N58	N59	0.00000	P	110.0	82.5	0.050	0.00050	0.25	0.253	
44	P61	N59	N57	0.00000	P	110.0	325.6	0.050	0.00088	2.80	0.448	
45	P62	N57	N60	0.00000	P	110.0	63.2	0.050	0.00066	0.32	0.336	
46	P63	N60	N61	0.00000	P	110.0	156.2	0.050	0.00022	0.10	0.112	
47	P64	N38	N62	0.00000	P	110.0	902.4	0.075	-0.00066	-0.63	-0.149	
48	P67	N62	N63	0.00000	P	110.0	577.2	0.075	-0.00132	-1.46	-0.299	
49	P68	N63	N64	0.00000	P	110.0	223.6	0.075	-0.00132	-0.57	-0.299	
50	P69	N64	N66	0.00000	P	110.0	375.8	0.075	0.00044	0.12	0.100	
51	P73	N64	N42	0.00000	P	110.0	223.6	0.075	-0.00198	-1.20	-0.448	
52	P74	N33	N73	0.00000	P	110.0	60.9	0.150	0.00167	0.01	0.094	
53	P75	N73	N74	0.00000	P	110.0	64.1	0.150	0.00167	0.01	0.094	
54	P76	N74	N34	0.00000	P	110.0	100.0	0.150	0.00123	0.01	0.070	
55	P77	N36	N75	0.00000	P	110.0	116.9	0.150	0.00088	0.00	0.050	
56	P78	N38	N77	0.00000	P	110.0	246.9	0.075	0.00022	0.02	0.050	
57	P79	N6	N78	0.00000	P	110.0	141.6	0.050	0.00194	5.24	0.986	
58	P80	N78	N32	0.00000	P	110.0	276.1	0.050	0.00056	1.02	0.283	
59	P81	N78	N79	0.00000	P	110.0	149.4	0.050	0.00072	0.89	0.367	
60	P82	N29	N79	0.00000	P	110.0	122.1	0.050	-0.00028	-0.13	-0.142	
61	P83	N19	N86	0.00000	P	110.0	211.4	0.075	0.00066	0.15	0.149	
62	P84	N59	N81	0.00000	P	110.0	89.6	0.075	-0.00038	-0.02	-0.087	
63	P85	N58	N82	0.00000	P	110.0	170.9	0.100	0.00126	0.10	0.161	
64	P86	N82	N81	0.00000	P	110.0	118.6	0.075	0.00082	0.13	0.186	
65	P87	N17	N84	0.00000	P	110.0	301.8	0.075	0.00066	0.21	0.149	
66	P89	N84	N87	0.00000	P	110.0	214.9	0.075	0.00066	0.15	0.149	
67	P2_2	N83	N88	0.00000	P	110.0	623.3	0.250	-0.00444	-0.04	-0.091	
68	P83_2	N86	N80	0.00000	P	110.0	429.1	0.075	0.00022	0.04	0.050	
69	P91	N86	N89	0.00000	P	110.0	81.0	0.050	0.00044	0.19	0.224	
70	P92	N41	N91	0.00000	P	110.0	313.2	0.050	0.00044	0.75	0.224	
71	P93	N9	N93	0.00000	P	110.0	138.7	0.050	0.00044	0.33	0.224	
72	P94	N6	N95	0.00000	P	110.0	406.0	0.150	0.00460	0.35	0.260	
73	P95	N95	N96	0.00000	P	110.0	478.6	0.150	0.00000	0.00	0.000	
74	P97	N96	N97	0.00000	P	110.0	161.4	0.150	0.00000	0.00	0.000	
75	P98	N9	N98	0.00000	P	110.0	98.5	0.050	0.00072	0.58	0.366	
76	P99	N10	N99	0.00000	P	110.0	119.0	0.050	0.00016	0.04	0.082	
77	P100	N98	N99	0.00000	P	110.0	265.3	0.050	0.00028	0.27	0.142	

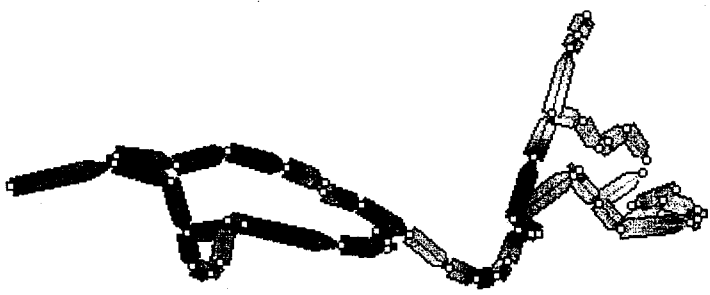
Pipe data, Los Palos

78	P8 2	N100	N9	0.00000	P	110.0	234.9	0.075	0.00308	2.85	0.697	
79	P101	N100	N95	0.00000	P	110.0	31.1	0.050	-0.00460	-5.70	-2.343	
80	P102	N57	N101	0.00000	P	110.0	133.3	0.075	0.00022	0.01	0.050	
81	P46 2	N104	N46	0.00000	P	110.0	114.2	0.100	0.00462	0.72	0.588	
82	P105	N104	N105	0.00000	P	110.0	34.5	0.075	0.00044	0.01	0.100	
83	P106	N46	N106	0.00000	P	110.0	176.2	0.050	0.00044	0.42	0.224	
84	P107	N2	N14	0.00000	P	110.0	40.0	0.150	0.00444	0.03	0.251	
85	P108	N70	N107	0.00000	P	110.0	805.0	0.150	0.00088	0.03	0.050	
86	P109	N43	N108	0.00000	P	110.0	141.2	0.075	0.00044	0.05	0.100	
87	P110	N107	N109	0.00000	P	110.0	1065.7	0.075	0.00044	0.35	0.100	
88	P48 2	N110	N48	0.00000	P	110.0	193.9	0.100	0.00000	0.00	0.000	
89	P111	N110	N111	0.00000	P	110.0	116.5	0.075	0.00044	0.04	0.100	
90	P112	N75	N112	0.00000	P	110.0	77.8	0.050	0.00022	0.05	0.112	
91	P113	N112	N113	0.00000	P	110.0	95.5	0.050	0.00022	0.06	0.112	
92	P114	N75	N114	0.00000	P	110.0	89.1	0.050	0.00022	0.06	0.112	
94	P118	N70	N117	0.00000	P	110.0	758.1	0.150	-0.00088	-0.03	-0.050	
95	P119	N3	N118	0.00000	P	110.0	498.4	0.150	-0.02002	-6.59	-1.133	
96	P120	N60	N102	0.00000	P	110.0	295.2	0.075	0.00044	0.10	0.100	
96	P13 2	N115	N15	0.00000	P	110.0	54.5	0.100	-0.00506	-0.41	-0.644	
97	P121	N88	N115	0.00000	P	110.0	36.5	0.150	-0.00444	-0.03	-0.251	
98	P117	N3	N15	0.00000	P	110.0	40.0	0.150	0.01260	0.22	0.713	
99	P122	N3	N117	0.00000	P	110.0	49.5	0.150	0.00088	0.00	0.050	

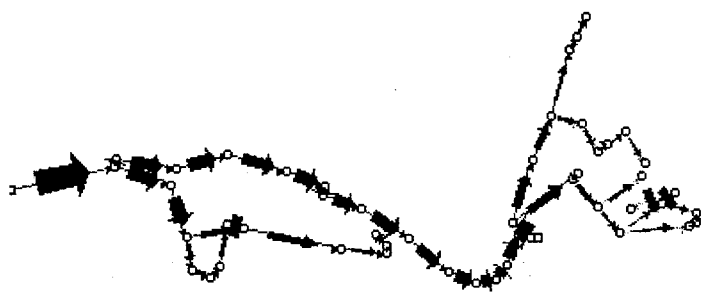
Node map



Pressuer Distribution



Flow Distribution



The Study on Urgent Improvement Project for the Water Supply System in East Timor

Pipe Network Analysis for Viqueqe, 2003

Figure

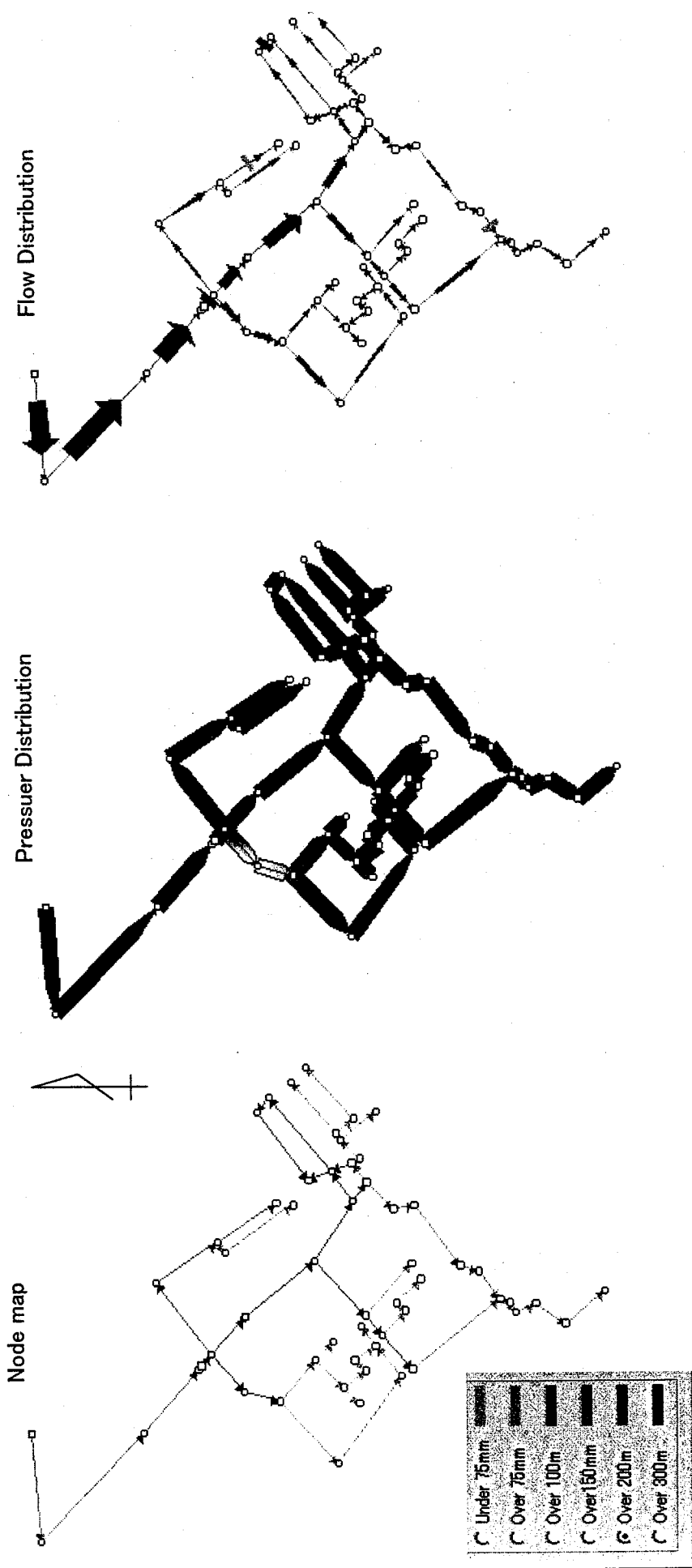
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Node data, Viqueque

-1		Input Data					Results		
NO	Node Name	Source Head (m)	Demand (m ³ /s)	Altitude (m)	X Coordinates	Y Coordinates	Total Head (m)	Pressure Head (m)	Source Inflow (m ³ /s)
1	N1	125.60	0.00000	125.60	10.0	5.0	125.60	0.00	0.01770
2	N2		0.00000	82.00	11.3	10.7	120.98	38.98	
3	N3		0.00000	78.00	10.3	13.8	115.34	37.34	
4	N4		0.00186	81.00	7.5	14.7	110.25	29.25	
5	N5		0.00093	80.00	5.7	15.0	109.71	29.71	
6	N6		0.00000	78.00	5.3	16.0	109.52	31.52	
7	N7		0.00093	78.00	5.9	16.5	109.38	31.38	
8	N8		0.00186	75.00	8.2	16.9	109.20	34.20	
9	N9		0.00000	72.00	8.0	17.8	109.20	37.20	
10	N10		0.00186	70.00	6.9	23.1	107.48	37.48	
11	N11		0.00093	69.00	6.7	25.6	107.26	38.26	
12	N12		0.00000	69.00	7.1	25.6	107.25	38.25	
13	N13		0.00093	67.00	7.7	25.0	107.23	40.23	
14	N14		0.00000	82.00	11.7	10.8	120.39	38.39	
15	N15		0.00000	78.00	11.2	14.1	115.61	37.61	
16	N16		0.00000	71.00	12.0	16.9	111.43	40.43	
17	N17		0.00000	70.00	11.1	20.1	106.67	36.67	
18	N18		0.00000	70.00	10.3	22.2	103.44	33.44	
19	N19		0.00000	70.00	9.8	22.1	102.71	32.71	
20	N20		0.00000	71.00	9.1	24.2	99.54	28.54	
21	N21		0.00000	72.00	7.5	26.8	95.16	23.16	
22	N22		0.00000	79.00	5.7	29.0	91.09	12.09	
23	N23		0.00000	90.00	5.1	30.5	88.77	-1.23	
24	N24		0.00000	88.00	5.3	31.6	87.17	-0.83	
25	N25		0.00000	75.00	6.1	32.2	85.74	10.74	
26	N26		0.00000	78.00	7.8	32.8	83.15	5.15	
27	N27		0.00840	93.60	7.6	33.5	82.11	-11.49	
28	N28	89.50	0.00000	93.60	7.6	33.9	89.50	-4.10	0.01230
29	N29		0.00063	78.00	8.4	32.5	84.82	6.82	
30	N30		0.00126	77.00	11.8	33.6	82.34	5.34	
31	N31		0.00126	65.00	14.2	34.6	81.21	16.21	
32	N32		0.00000	70.00	17.8	35.6	81.05	11.05	
33	N33		0.00000	67.00	18.5	36.0	81.02	14.02	
34	N34		0.00126	70.00	19.6	36.5	80.97	10.97	
35	N35		0.00126	50.00	11.1	36.1	81.36	31.36	
36	N36		0.00126	57.00	10.8	35.8	81.15	24.15	
37	N37		0.00126	70.00	9.3	37.2	80.57	10.57	
38	N38		0.00063	70.00	7.9	38.4	80.45	10.45	
39	N39		0.00032	70.00	8.3	42.2	79.56	9.56	
40	N40		0.00032	65.00	8.5	42.6	79.54	14.54	
41	N41		0.00032	65.00	9.0	42.6	79.55	14.55	
42	N42		0.00000	55.00	9.5	40.7	79.92	24.92	
43	N43		0.00000	55.00	10.1	41.4	79.92	24.92	
44	N44		0.00000	70.00	9.2	39.0	79.92	9.92	
45	N45		0.00063	60.00	11.0	39.6	79.55	19.55	
46	N46		0.00000	65.00	13.8	36.3	76.58	11.58	
47	N47		0.00126	60.00	12.3	37.2	71.93	11.93	
48	N48		0.00000	60.00	12.7	37.7	71.71	11.71	
49	N49		0.00000	58.00	13.4	38.7	71.29	13.29	
50	N50		0.00063	60.00	11.7	39.8	70.58	10.58	
			0.03000						

Pipe data, Viqueque

Input Data									Results				
NO	Pipe Name	Start Node	End Node	Demand (m ³ /s)	Type Pipe: P : Pump : PM Valve : V Red. V : VA Fix Head : E Fix Flow : J	Roughness Coeff. Coeff. A Loss Coeff. Start(S)/End(E) Head Loss (m)	Length(m)		Diameter(m) Coeff. C Diameter(m) Diameter(m)	Flow (m ³ /s)	Head Loss (m)	Veloc. (m/s)	Loss Coeff.
							Coeff. B	Head(m)					
1	P1	N1	N2	0.00000	P	110.0	438.5	0.150		0.01770	4.62	1.002	
2	P2	N2	N3	0.00000	P	110.0	244.3	0.100		0.00930	5.64	1.184	
3	P3	N3	N4	0.00000	P	110.0	220.6	0.100		0.00930	5.09	1.184	
4	P4	N4	N5	0.00000	P	110.0	136.9	0.100		0.00361	0.55	0.460	
5	P5	N5	N6	0.00000	P	110.0	80.8	0.100		0.00268	0.19	0.341	
6	P6	N6	N7	0.00000	P	110.0	58.6	0.100		0.00268	0.14	0.341	
7	P7	N7	N8	0.00000	P	110.0	175.1	0.100		0.00175	0.18	0.223	
8	P8	N8	N9	0.00000	P	110.0	69.1	0.100		-0.00011	0.00	-0.014	
9	P9	N9	N10	0.00000	P	110.0	406.0	0.100		0.00372	1.72	0.474	
10	P10	N10	N11	0.00000	P	110.0	188.1	0.100		0.00186	0.22	0.237	
11	P11	N11	N12	0.00000	P	110.0	30.0	0.100		0.00093	0.01	0.118	
12	P12	N12	N13	0.00000	P	110.0	63.6	0.100		0.00093	0.02	0.118	
13	P13	N4	N9	0.00000	P	110.0	235.5	0.100		0.00383	1.05	0.488	
14	P14	N2	N14	0.00000	P	110.0	30.9	0.100		0.00840	0.59	1.070	
15	P15	N14	N15	0.00000	P	110.0	250.3	0.100		0.00840	4.78	1.070	
16	P16	N15	N16	0.00000	P	110.0	218.4	0.100		0.00840	4.17	1.070	
17	P17	N16	N17	0.00000	P	110.0	249.3	0.100		0.00840	4.77	1.070	
18	P18	N17	N18	0.00000	P	110.0	168.5	0.100		0.00840	3.22	1.070	
19	P19	N18	N19	0.00000	P	110.0	38.2	0.100		0.00840	0.73	1.070	
20	P20	N19	N20	0.00000	P	110.0	166.0	0.100		0.00840	3.17	1.070	
21	P21	N20	N21	0.00000	P	110.0	229.0	0.100		0.00840	4.38	1.070	
22	P22	N21	N22	0.00000	P	110.0	213.2	0.100		0.00840	4.07	1.070	
23	P23	N22	N23	0.00000	P	110.0	121.2	0.100		0.00840	2.32	1.070	
24	P24	N23	N24	0.00000	P	110.0	83.9	0.100		0.00840	1.60	1.070	
25	P25	N24	N25	0.00000	P	110.0	75.0	0.100		0.00840	1.43	1.070	
26	P26	N25	N26	0.00000	P	110.0	135.2	0.100		0.00840	2.58	1.070	
27	P27	N26	N27	0.00000	P	110.0	54.6	0.100		0.00840	1.04	1.070	
28	P28	N28	N29	0.00000	P	110.0	120.9	0.100		0.01230	4.68	1.566	
29	P29	N29	N30	0.00000	P	110.0	268.0	0.100		0.00567	2.48	0.722	
30	P30	N30	N31	0.00000	P	110.0	195.0	0.100		0.00441	1.13	0.562	
31	P31	N31	N32	0.00000	P	110.0	280.2	0.100		0.00126	0.16	0.160	
32	P32	N32	N33	0.00000	P	110.0	60.5	0.100		0.00126	0.03	0.160	
33	P33	N33	N34	0.00000	P	110.0	90.6	0.100		0.00126	0.05	0.160	
34	P34	N29	N35	0.00000	P	110.0	337.5	0.100		0.00600	3.46	0.764	
35	P35	N35	N36	0.00000	P	110.0	31.8	0.100		0.00474	0.21	0.604	
36	P36	N36	N37	0.00000	P	110.0	153.9	0.100		0.00348	0.58	0.443	
37	P37	N37	N38	0.00000	P	110.0	138.3	0.100		0.00159	0.12	0.202	
38	P38	N38	N39	0.00000	P	110.0	286.6	0.050		0.00051	0.89	0.259	
39	P39	N39	N40	0.00000	P	110.0	33.5	0.050		0.00019	0.02	0.096	
40	P40	N40	N41	0.00000	P	110.0	37.5	0.050		-0.00013	-0.01	-0.067	
41	P41	N41	N42	0.00000	P	110.0	147.4	0.050		-0.00045	-0.37	-0.230	
42	P42	N42	N43	0.00000	P	110.0	69.1	0.050		0.00000	0.00	0.000	
43	P43	N43	N44	0.00000	P	110.0	192.2	0.050		0.00000	0.00	0.000	
44	P44	N37	N45	0.00000	P	110.0	220.6	0.050		0.00063	1.02	0.321	
45	P45	N31	N46	0.00000	P	110.0	131.0	0.050		0.00189	4.64	0.963	
46	P46	N46	N47	0.00000	P	110.0	131.2	0.050		0.00189	4.64	0.963	
47	P47	N47	N48	0.00000	P	110.0	48.0	0.050		0.00063	0.22	0.321	
48	P48	N48	N49	0.00000	P	110.0	91.5	0.050		0.00063	0.42	0.321	
49	P49	N49	N50	0.00000	P	110.0	151.9	0.050		0.00063	0.70	0.321	
50	P50	N38	N42	0.00000	P	110.0	210.6	0.050		0.00045	0.53	0.230	



Figure

The Study on Urgent Improvement Project for the Water Supply System in East Timor

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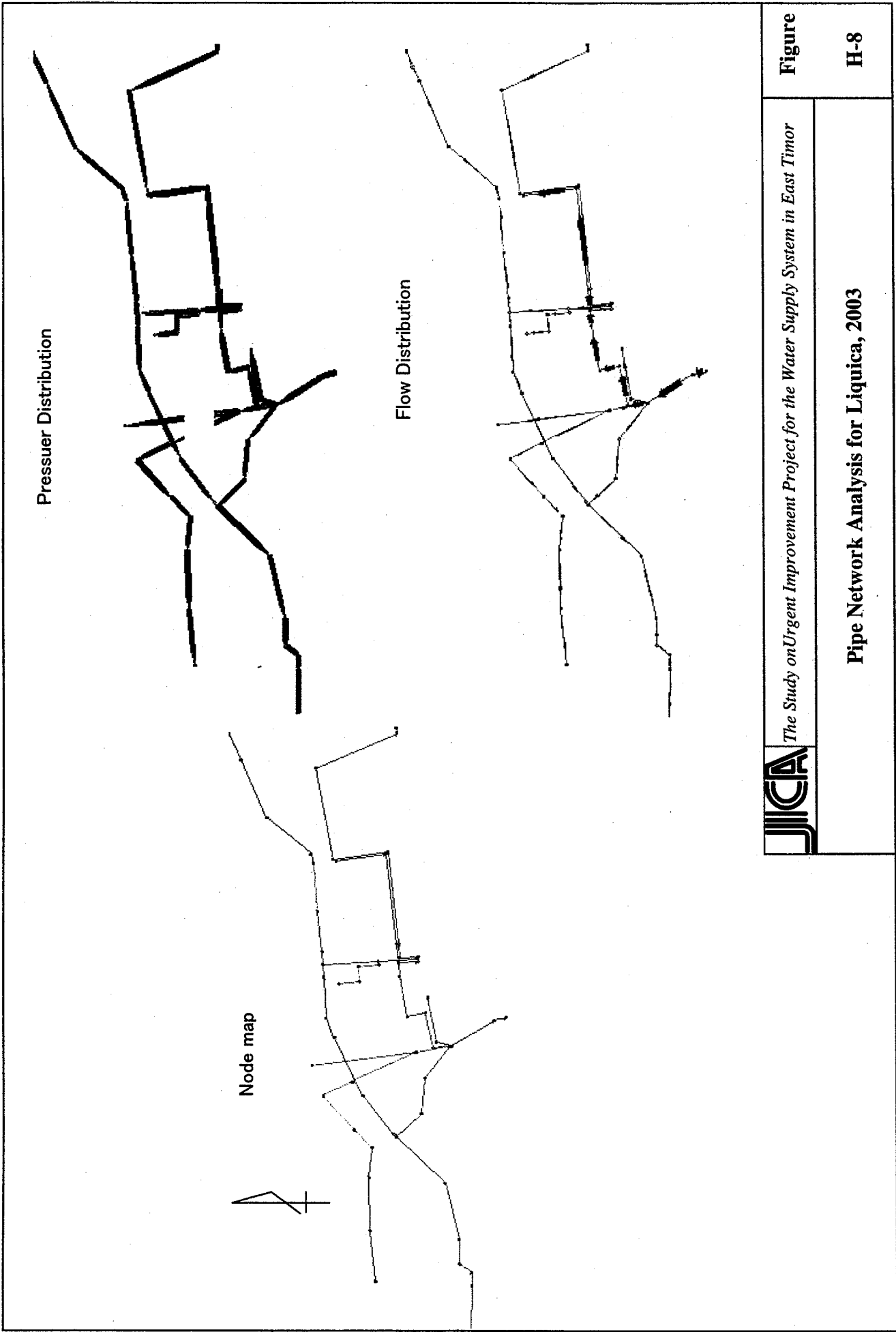
Pipe Network Analysis for Ainaro, 2003

Node data, Ainara

-1 Input Data							Results		
NO	Node Name	Source Head (m)	Demand (m ³ /s)	Altitude (m)	X Coordinates	Y Coordinates	Total Head (m)	Pressure Head (m)	Source Inflow (m ³ /s)
1	N1	1025.00	0.00000	1025.00	9.0	4.5	1025.00	0.00	0.01200
2	N2		0.00000	965.00	5.4	4.8	1024.78	59.78	
3	N3		0.00000	925.00	9.0	8.3	1024.47	99.47	
4	N4		0.00000	900.00	11.6	10.6	964.97	64.97	
5	N5		0.00720	890.00	12.8	11.7	964.69	74.69	
6	N6		0.00048	860.00	14.7	14.1	904.43	44.43	
7	N7		0.00000	845.00	16.7	15.4	904.25	59.25	
8	N10		0.00048	745.00	17.7	14.7	904.23	159.23	
9	N11		0.00048	838.00	20.2	12.6	904.22	66.22	
10	N12		0.00024	845.00	19.7	12.2	904.22	59.22	
11	N14		0.00024	880.00	15.0	11.1	964.95	84.95	
12	N15		0.00024	935.00	14.0	8.7	964.97	29.97	
13	N16		0.00024	905.00	15.3	10.8	964.96	59.96	
14	N17		0.00036	863.00	16.6	12.8	964.96	101.96	
15	N18		0.00000	945.00	10.4	11.7	964.90	19.90	
16	N19		0.00048	934.00	10.0	12.9	964.85	30.85	
17	N20		0.00048	870.00	7.9	14.9	964.72	94.72	
18	N21		0.00048	860.00	10.8	17.0	964.61	104.61	
19	N22		0.00036	825.00	11.9	16.1	964.59	139.59	
20	N23		0.00048	825.00	12.5	15.6	964.59	139.59	
21	N24		0.00000	870.00	11.4	14.1	964.84	94.84	
22	N25		0.00048	840.00	12.0	14.7	964.84	124.84	
23	N26		0.00000	880.00	10.5	15.0	964.37	84.37	
24	N27		0.00036	895.00	9.9	15.6	963.94	68.94	
25	N28		0.00000	850.00	11.0	15.8	964.40	114.40	
26	N29		0.00012	840.00	11.4	15.4	964.42	124.42	
27	N31		0.00024	875.00	12.9	15.8	904.36	29.36	
28	N32		0.00024	875.00	12.2	16.4	904.34	29.34	
29	N33		0.00024	860.00	11.1	17.4	904.32	44.32	
30	N34		0.00048	837.00	13.4	20.4	904.20	67.20	
31	N8		0.00048	837.00	17.3	15.9	904.23	67.23	
32	N9		0.00048	840.00	18.0	15.4	904.22	64.22	
33	N35		0.00048	840.00	18.1	15.6	904.21	64.21	
34	N36		0.00000	840.00	18.8	15.0	904.20	64.20	
35	N37		0.00000	840.00	19.0	14.9	904.20	64.20	
36	N38		0.00048	840.00	20.7	13.4	904.19	64.19	
37	N39		0.00024	825.00	19.7	16.2	903.78	78.78	
38	N40		0.00006	830.00	19.5	15.4	903.75	73.75	
39	N41		0.00030	825.00	21.2	13.8	902.78	77.78	
40	N42		0.00012	837.00	16.4	16.8	904.22	67.22	
41	N43		0.00012	837.00	16.5	17.5	904.22	67.22	
42	N44		0.00024	837.00	14.5	19.0	904.20	67.20	
43	N45		0.00024	837.00	14.3	19.6	904.20	67.20	
44	N46		0.00006	835.00	13.3	20.7	904.19	69.19	
45	N47		0.00012	830.00	12.9	20.9	904.19	74.19	
46	N48		0.00060	830.00	13.2	21.6	904.17	74.17	
47	N49		0.00012	825.00	12.6	22.6	904.17	79.17	
48	N50		0.00036	825.00	13.6	23.9	904.17	79.17	
49	N51		0.00003	855.00	13.01	17.1	904.26	49.26	
50	N52		0.00003	855.00	13.3	16.8	904.24	49.24	
51	N53		0.00006	855.00	14.1	17.7	904.22	49.22	
52	N54		0.00012	855.00	14.6	17.4	904.18	49.18	
53	N55		0.00000	850.00	17.4	13.9	904.23	54.23	
54	N13		0.00024	850.00	16.6	13.4	964.92	114.92	
55	N56	905.00	0.00000	905.00	12.8	11.7	905.00	0.00	0.00762
56	N57		0.01200	965.00	11.1	10.2	1024.30	59.30	
57	N58	965.00		965.00	11.2	10.3	965.00	0.00	0.01176

Pipe data, Ainaro

Input Data									Results			
NO	Pipe Name	Start Node	End Node	Demand (m ³ /s)	Type: Pipe:	Roughness Coeff. Coeff. A	Length(m) Coeff. B	Diameter(m) Coeff. C	Flow (m ³ /s)	Head Loss (m)	Veloc. (m/s)	Loss Coeff.
					Valve: V							
					Red. V: VA	Start(S)/End(E)	Head(m)	Diameter(m)				
					Fix Head: E	Head Loss (m)						
					Fix Flow: J							
1	P1	N1	N2	0.00000	P	110.0	43.3	0.150	0.01200	0.22	0.679	
2	P2	N2	N3	0.00000	P	110.0	60.3	0.150	0.01200	0.31	0.679	
3	P4	N4	N5	0.00000	P	110.0	19.5	0.100	0.00720	0.28	0.917	
4	P6	N6	N7	0.00000	P	110.0	28.6	0.100	0.00456	0.18	0.581	
5	P9	N7	N10	0.00000	P	110.0	13.7	0.100	0.00224	0.02	0.285	
6	P10	N10	N11	0.00000	P	110.0	39.2	0.100	0.00039	0.00	0.049	
7	P11	N11	N12	0.00000	P	110.0	7.7	0.100	-0.00009	0.00	-0.012	
8	P12	N12	N55	0.00000	P	110.0	40.9	0.100	-0.00033	0.00	-0.042	
9	P14	N4	N15	0.00000	P	110.0	36.2	0.150	0.00132	0.00	0.075	
10	P15	N15	N16	0.00000	P	110.0	30.0	0.150	0.00108	0.00	0.061	
11	P16	N16	N17	0.00000	P	110.0	28.6	0.150	0.00036	0.00	0.020	
12	P17	N16	N14	0.00000	P	110.0	5.1	0.050	0.00048	0.01	0.244	
13	P18	N4	N18	0.00000	P	110.0	20.1	0.100	0.00324	0.07	0.413	
14	P19	N18	N19	0.00000	P	110.0	15.0	0.100	0.00324	0.05	0.413	
15	P20	N19	N20	0.00000	P	110.0	34.1	0.080	0.00200	0.14	0.398	
16	P21	N20	N21	0.00000	P	110.0	43.1	0.080	0.00152	0.10	0.303	
17	P22	N21	N22	0.00000	P	110.0	16.0	0.080	0.00104	0.02	0.207	
18	P23	N22	N23	0.00000	P	110.0	9.6	0.080	0.00048	0.00	0.095	
19	P24	N19	N24	0.00000	P	110.0	22.0	0.080	0.00076	0.01	0.151	
20	P25	N24	N25	0.00000	P	110.0	10.2	0.080	0.00048	0.00	0.095	
21	P26	N24	N26	0.00000	P	110.0	15.9	0.025	0.00028	0.47	0.564	
22	P27	N26	N27	0.00000	P	110.0	8.9	0.025	0.00036	0.43	0.733	
23	P28	N26	N28	0.00000	P	110.0	11.3	0.025	-0.00008	-0.04	-0.169	
24	P29	N28	N29	0.00000	P	110.0	6.1	0.025	-0.00008	-0.02	-0.169	
25	P30	N29	N22	0.00000	P	110.0	10.4	0.025	-0.00020	-0.17	-0.413	
26	P31	N6	N31	0.00000	P	110.0	29.9	0.100	0.00258	0.06	0.328	
27	P32	N31	N32	0.00000	P	110.0	10.5	0.100	0.00222	0.02	0.282	
28	P33	N32	N33	0.00000	P	110.0	18.2	0.100	0.00186	0.02	0.236	
29	P34	N33	N34	0.00000	P	110.0	45.5	0.080	0.00162	0.12	0.322	
30	P7	N7	N8	0.00000	P	110.0	9.0	0.100	0.00232	0.02	0.296	
31	P8	N8	N9	0.00000	P	110.0	9.3	0.080	0.00100	0.01	0.199	
32	P35	N9	N35	0.00000	P	110.0	3.6	0.080	0.00156	0.01	0.310	
33	P36	N35	N36	0.00000	P	110.0	10.8	0.080	0.00108	0.01	0.215	
34	P37	N36	N37	0.00000	P	110.0	3.2	0.080	0.00084	0.00	0.167	
35	P38	N37	N38	0.00000	P	110.0	27.4	0.080	0.00048	0.01	0.095	
36	P39	N36	N39	0.00000	P	110.0	18.3	0.025	0.00024	0.42	0.489	
37	P40	N37	N40	0.00000	P	110.0	9.3	0.025	0.00036	0.45	0.733	
38	P41	N40	N41	0.00000	P	110.0	28.3	0.025	0.00030	0.97	0.611	
39	P42	N8	N42	0.00000	P	110.0	15.3	0.080	0.00084	0.01	0.168	
40	P43	N42	N43	0.00000	P	110.0	8.7	0.080	0.00072	0.01	0.144	
41	P44	N43	N44	0.00000	P	110.0	30.5	0.080	0.00060	0.01	0.120	
42	P45	N44	N45	0.00000	P	110.0	8.0	0.080	0.00036	0.00	0.072	
43	P46	N45	N34	0.00000	P	110.0	14.1	0.080	0.00012	0.00	0.024	
44	P47	N34	N46	0.00000	P	110.0	4.3	0.080	0.00126	0.01	0.251	
45	P48	N46	N47	0.00000	P	110.0	4.6	0.080	0.00120	0.01	0.239	
46	P49	N47	N48	0.00000	P	110.0	8.9	0.080	0.00108	0.01	0.215	
47	P50	N48	N49	0.00000	P	110.0	14.6	0.080	0.00048	0.00	0.095	
48	P51	N49	N50	0.00000	P	110.0	20.5	0.080	0.00036	0.00	0.072	
49	P52	N32	N51	0.00000	P	110.0	13.7	0.025	0.00012	0.09	0.244	
50	P53	N51	N52	0.00000	P	110.0	4.8	0.025	0.00009	0.02	0.183	
51	P54	N52	N53	0.00000	P	110.0	13.7	0.025	0.00006	0.02	0.122	
52	P55	N31	N54	0.00000	P	110.0	28.0	0.025	0.00012	0.18	0.244	
53	P56	N9	N10	0.00000	P	110.0	8.7	0.100	-0.00104	0.00	-0.133	
54	P57	N10	N55	0.00000	P	110.0	10.1	0.100	0.00033	0.00	0.042	
55	P13	N14	N13	0.00000	P	110.0	33.3	0.050	0.00024	0.03	0.122	
56	P5_2	N56	N6	0.00000	P	110.0	36.0	0.100	0.00762	0.57	0.970	
57	P3	N3	N57	0.00000	P	110.0	33.5	0.150	0.01200	0.17	0.679	
58	P58	N58	N4	0.00000	P	110.0	6.4	0.150	0.01176	0.03	0.665	



The Study on Urgent Improvement Project for the Water Supply System in East Timor

Figure

Pipe Network Analysis for Lliquica, 2003

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Node data, Liquica

-1 Input Data							Results		
NO	Node Name	Source Head (m)	Demand (m ³ /s)	Altitude (m)	X Coordinates	Y Coordinates	Total Head (m)	Pressure Head (m)	Source Inflow (m ³ /s)
1	N3		0.00012	31.00	154.0	11.0	121.53	90.53	
2	N4		0.00012	31.00	138.4	18.0	121.54	90.54	
3	N5		0.00000	32.00	128.7	29.5	121.55	89.55	
4	N6		0.00012	32.00	126.1	30.2	121.55	89.55	
5	N9		0.00000	44.00	128.8	49.2	182.12	138.12	
6	N10		0.00000	80.00	104.4	52.0	179.93	99.93	
7	N11	128.00	0.00000	128.00	100.6	57.3	128.00	0.00	0.00312
8	N12		0.00000	80.00	95.7	52.7	179.28	99.28	
9	N13		0.00012	33.00	102.4	32.4	121.61	88.61	
10	N14		0.00024	33.00	95.6	32.8	121.61	88.61	
11	N15		0.00720	88.00	75.6	57.2	172.94	84.94	
12	N16		0.00024	34.00	67.6	40.5	79.44	45.44	
13	N17		0.00024	33.00	79.6	35.6	121.55	88.55	
14	N18		0.00000	88.00	85.1	54.6	178.69	90.69	
15	N22		0.00024	33.00	84.8	33.4	121.57	88.57	
16	N33		0.00000	100.00	78.3	62.3	177.60	77.60	
17	N34		0.00000	169.40	77.3	66.2	177.62	8.22	
18	N35		0.00000	100.00	84.2	77.4	281.21	181.21	
19	N37		0.00024	34.00	63.9	32.7	79.13	45.13	
20	N38		0.00024	34.00	54.8	41.0	78.82	44.82	
21	N42		0.00024	34.00	50.1	45.5	78.71	44.71	
22	N46		0.00024	34.00	59.2	58.5	177.54	143.54	
23	N47		0.00024	34.00	52.9	51.9	177.31	143.31	
24	N48		0.00072	38.00	40.7	64.7	176.95	138.95	
25	N50		0.00048	82.00	25.76	68.3	176.79	94.79	
26	N51		0.00024	82.00	19.2	68.4	176.76	94.76	
27	N52		0.00036	82.00	16.9	71.6	176.74	94.74	
28	N53		0.00024	82.00	13.5	71.6	176.74	94.74	
29	N55		0.00012	40.00	68.7	59.3	177.58	137.58	
30	N56		0.00012	32.00	113.3	31.3	121.61	89.61	
31	N63	281.40	0.00000	100.00	85.0	80.6	281.40	181.40	0.00400
32	N69		0.00500	69.80	101.2	57.5	272.16	202.36	
33	N70		0.00000	60.00	100.9	52.7	272.22	212.22	
34	N71		0.00000	60.00	104.7	52.5	272.27	212.27	
35	N72		0.00000	55.00	129.3	49.7	272.57	217.57	
36	N73		0.00000	40.00	127.3	35.3	272.74	232.74	
37	N74		0.00000	45.00	151.9	30.9	273.05	228.05	
38	N61	183.30	0.00000	73.30	126.9	36.2	183.30	110.00	0.01468
39	N76		0.00000	273.35	161.3	52.1	273.33	-0.02	
40	N77	273.35		273.35	162.8	51.8	273.35	0.00	0.00500
41	N2		0.00012	30.00	161.0	7.9	121.53	91.53	
42	N78		0.00024	30.00	42.2	44.8	78.69	48.69	
43	N79		0.00024	30.00	28.0	45.1	78.67	48.67	
44	N80		0.00024	30.00	14.6	46.4	78.67	48.67	
45	N81		0.00000	80.00	76.8	61.4	177.89	97.89	
46	N82		0.00000	110.00	86.2	59.5	178.41	68.41	
47	N83		0.00120	120.00	90.3	60.1	177.59	57.59	
48	N19		0.00024	60.00	64.1	43.1	121.53	61.53	
49	N21		0.00024	50.00	53.6	51.2	121.53	71.53	
50	N90	80.30	0.00000	80.30	75.4	56.9	80.30	0.00	0.00216
51	N91		0.00048	30.00	72.1	29.8	79.38	49.38	
52	N93		0.00000	33.00	99.0	32.6	121.61	88.61	
53	N94		0.00000	73.30	99.8	47.1	127.95	54.65	
54	N95		0.00048	72.00	98.9	47.3	127.78	55.78	
55	N96		0.00024	68.00	98.5	41.9	127.39	59.39	
56	N97		0.00024	62.00	94.4	42.2	127.26	65.26	
57	N98		0.00024	50.00	93.8	36.8	127.20	77.20	
58	N49		0.00024	45.00	0.5	71.3	176.74	131.74	
59	N99		0.00000	80.00	99.6	52.4	179.49	99.49	
60	N100		0.00340	128.00	99.9	57.5	179.46	51.46	
61	N101		0.00400	169.40	77.3	66.7	280.45	111.05	

Pipe data, Liquica

Input Data									Results			
NO	Pipe Name	Start Node	End Node	Demand (m ³ /s)	Type: Pipe: P - Pump; PM Valve: V Red. V: VA Fix Head: E Fix Flow: J	Roughness Coeff. Coeff. A Loss Coeff. Start(S)/End(E) Head Loss (m)	Length(m)	Diameter(m)	Flow (m ³ /s)	Head Loss (m)	Veloc. (m/s)	Loss Coeff.
							Coeff. B Head(m)	Coeff. C Diameter(m) Diameter(m)				
1	P3	N3	N4	0.00000	P	110.0	205.1	0.100	-0.00024	-0.01	-0.031	
2	P4	N4	N5	0.00000	P	110.0	181.4	0.100	-0.00036	-0.01	-0.046	
3	P5	N5	N6	0.00000	P	110.0	31.4	0.100	-0.00036	0.00	-0.046	
4	P9	N9	N10	0.00000	P	110.0	294.6	0.150	0.01468	2.20	0.831	
5	P15	N90	N16	0.00000	P	110.0	218.7	0.075	0.00168	0.86	0.380	
6	P17	N18	N12	0.00000	P	110.0	129.8	0.150	-0.01128	-0.59	-0.638	
7	P27	N22	N14	0.00000	P	110.0	130.0	0.100	-0.00096	-0.04	-0.122	
8	P37	N33	N34	0.00000	P	110.0	48.9	0.100	-0.00120	-0.03	-0.153	
9	P38	N101	N35	0.00000	P	110.0	157.9	0.100	-0.00400	-0.76	-0.509	
10	P41	N16	N37	0.00000	P	110.0	103.3	0.075	0.00144	0.31	0.326	
11	P42	N37	N38	0.00000	P	110.0	147.4	0.075	0.00120	0.31	0.272	
12	P47	N42	N38	0.00000	P	110.0	78.1	0.075	-0.00096	-0.11	-0.217	
13	P54	N47	N48	0.00000	P	110.0	212.5	0.100	0.00228	0.36	0.290	
14	P57	N50	N51	0.00000	P	110.0	78.6	0.100	0.00108	0.03	0.138	
15	P58	N51	N52	0.00000	P	110.0	47.4	0.100	0.00084	0.01	0.107	
16	P59	N52	N53	0.00000	P	110.0	40.5	0.100	0.00048	0.00	0.061	
17	P62	N55	N34	0.00000	P	110.0	132.2	0.150	-0.00288	-0.05	-0.163	
18	P63	N6	N56	0.00000	P	110.0	154.6	0.075	-0.00048	-0.06	-0.109	
19	P69	N35	N63	0.00000	P	110.0	39.3	0.100	-0.00400	-0.19	-0.509	
20	P78	N69	N70	0.00000	P	110.0	58.6	0.150	-0.00500	-0.06	-0.283	
21	P79	N70	N71	0.00000	P	110.0	46.0	0.150	-0.00500	-0.05	-0.283	
22	P80	N71	N72	0.00000	P	110.0	297.1	0.150	-0.00500	-0.30	-0.283	
23	P81	N72	N73	0.00000	P	110.0	174.5	0.150	-0.00500	-0.18	-0.283	
24	P82	N73	N74	0.00000	P	110.0	299.9	0.150	-0.00500	-0.30	-0.283	
25	P83	N74	N76	0.00000	P	110.0	278.8	0.150	-0.00500	-0.28	-0.283	
26	P10	N56	N13	0.00000	P	110.0	131.6	0.150	-0.00060	0.00	-0.034	
27	P11	N13	N93	0.00000	P	110.0	40.7	0.150	-0.00072	0.00	-0.041	
28	P8_2	N61	N9	0.00000	P	110.0	157.8	0.150	0.01468	1.18	0.831	
29	P85	N76	N77	0.00000	P	110.0	17.3	0.150	-0.00500	-0.02	-0.283	
30	P2	N3	N2	0.00000	P	110.0	91.9	0.100	0.00012	0.00	0.015	
31	P86	N42	N78	0.00000	P	110.0	96.4	0.100	0.00072	0.02	0.092	
32	P87	N78	N79	0.00000	P	110.0	170.1	0.100	0.00048	0.02	0.061	
33	P88	N79	N80	0.00000	P	110.0	161.9	0.100	0.00024	0.00	0.031	
34	P51	N55	N46	0.00000	P	110.0	114.2	0.150	0.00276	0.04	0.156	
35	P48	N34	N15	0.00000	P	110.0	110.0	0.080	0.00720	4.68	1.432	
36	P18	N34	N81	0.00000	P	110.0	57.8	0.150	-0.01128	-0.26	-0.638	
37	P13	N81	N82	0.00000	P	110.0	114.9	0.150	-0.01128	-0.53	-0.638	
38	P14	N82	N18	0.00000	P	110.0	59.7	0.150	-0.01128	-0.27	-0.638	
39	P16	N33	N83	0.00000	P	110.0	146.7	0.150	0.00120	0.01	0.068	
40	P19	N17	N19	0.00000	P	110.0	207.1	0.100	0.00048	0.02	0.061	
41	P21	N19	N21	0.00000	P	110.0	158.4	0.100	0.00024	0.00	0.031	
42	P20	N22	N17	0.00000	P	110.0	67.9	0.100	0.00072	0.01	0.092	
43	P28	N90	N91	0.00000	P	110.0	328.3	0.050	0.00048	0.92	0.244	
44	P11_2	N93	N14	0.00000	P	110.0	40.7	0.150	0.00120	0.00	0.068	
45	P22	N11	N94	0.00000	P	110.0	122.7	0.150	0.00312	0.05	0.177	
46	P23	N94	N93	0.00000	P	110.0	173.8	0.050	0.00192	6.33	0.978	
47	P12	N12	N99	0.00000	P	110.0	46.0	0.150	-0.01128	-0.21	-0.638	
48	P24	N94	N95	0.00000	P	110.0	11.1	0.050	0.00120	0.17	0.611	
49	P26	N95	N96	0.00000	P	110.0	65.0	0.050	0.00072	0.39	0.367	
50	P25	N96	N97	0.00000	P	110.0	48.7	0.050	0.00048	0.14	0.244	
51	P29	N97	N98	0.00000	P	110.0	65.2	0.050	0.00024	0.05	0.122	
52	P53	N46	N47	0.00000	P	110.0	109.4	0.100	0.00252	0.23	0.321	
53	P55	N48	N50	0.00000	P	110.0	184.6	0.100	0.00156	0.16	0.199	
54	P56	N53	N49	0.00000	P	110.0	155.5	0.100	0.00024	0.00	0.031	
55	P12_2	N99	N10	0.00000	P	110.0	58.5	0.150	-0.01468	-0.44	-0.831	
56	P92	N99	N100	0.00000	P	110.0	61.9	0.150	0.00340	0.03	0.192	